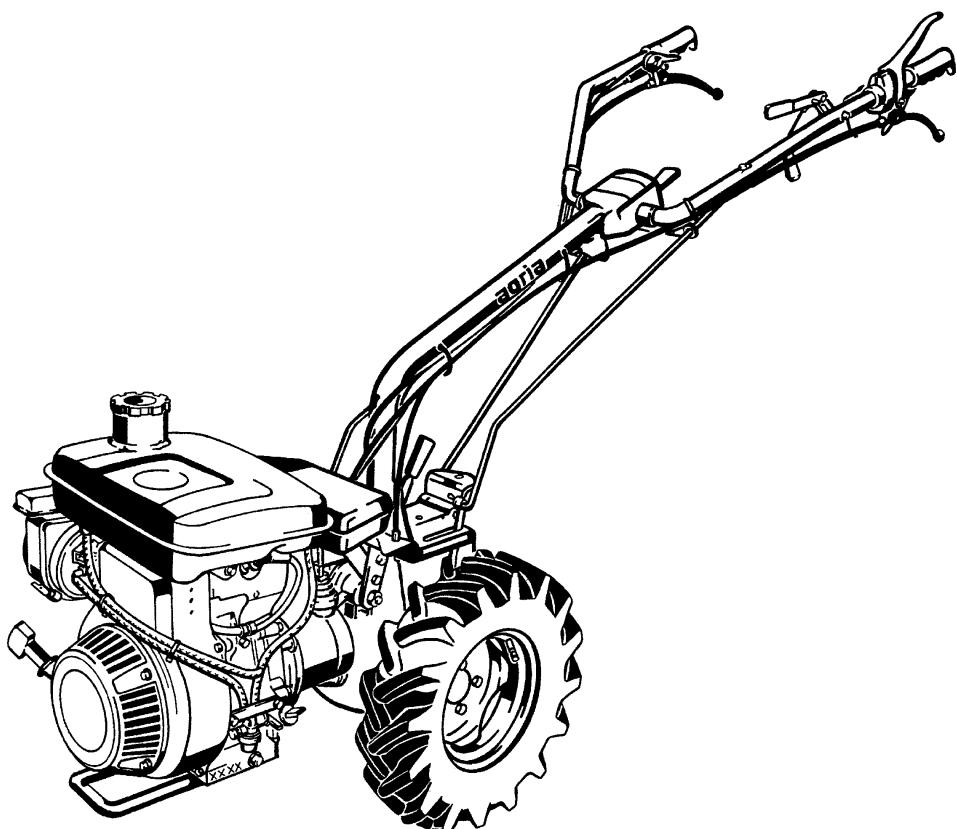


**Original  
Operating  
Instructions**

**agria**

**Two-Wheel Tractor  
3600**

*Engine EH 17*



4522



*Before commissioning the machine, read operating  
instructions and observe warnings and safety instructions.*



*Operating Instructions No. 998 724-B 10.10*



**Please complete:**

Machine Type No.: .....

Identification No.: .....

Engine Type: .....

Engine No.: .....

Date of Purchase: .....

For name plate, refer to p3/fig. A/16.

For engine type and number, refer to pages 54/fig. E/8.

Please state these data when ordering spare parts to avoid wrong deliveries.

**Only use original agria spare parts!**

Specifications, figures and dimensions stated in these instructions are not binding. No claims can be derived from them. We reserve the right for improvements without changing these instructions.

**This delivery comprises:**

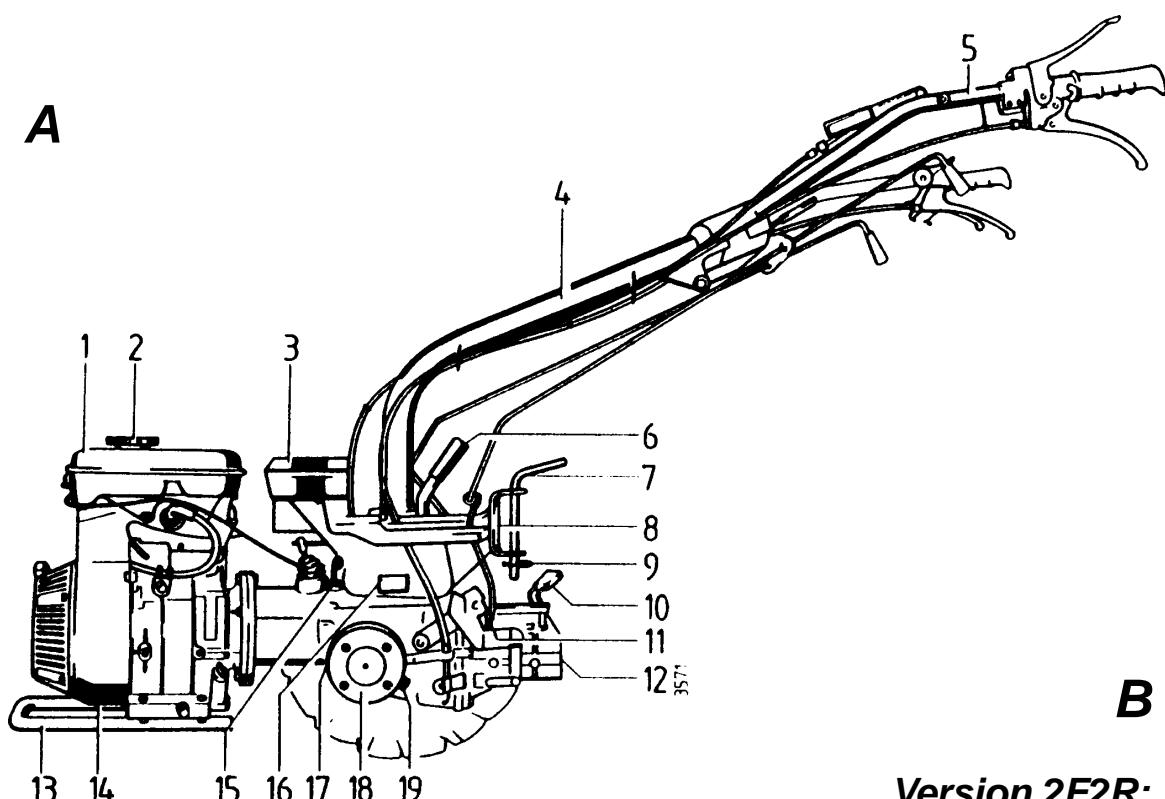
- Operating instructions
- Two-wheel tractor
  - Basic machine
  - Steering handle
- Tool kit

**Symbols**

	Warning – Danger
	Important information
	Choke
	Fuel
	Oil
	Engine Start
	Engine Stop
	Engine oil level
	Air filter
	Air cooling
	Transmission oil level
	Visual check
	Clutch
	Mowing drive
	Wheel drive
	Forward
	Reverse
	PTO
	Brake
	Open (unlocked)
	Closed (locked)
	Clockwise
	Anti clockwise

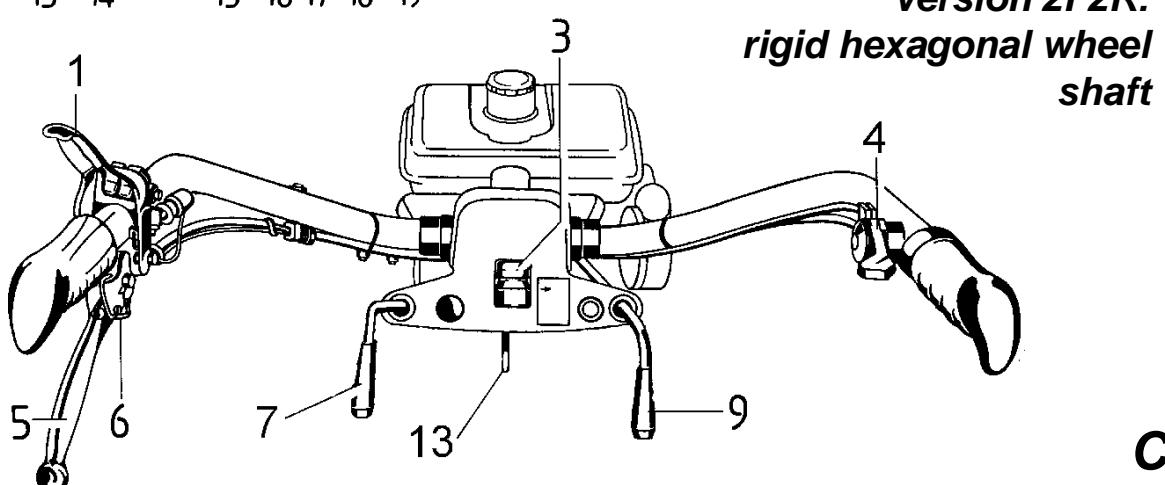
→ **agria - Service** ← = contact  
Your agria workshop

**A**



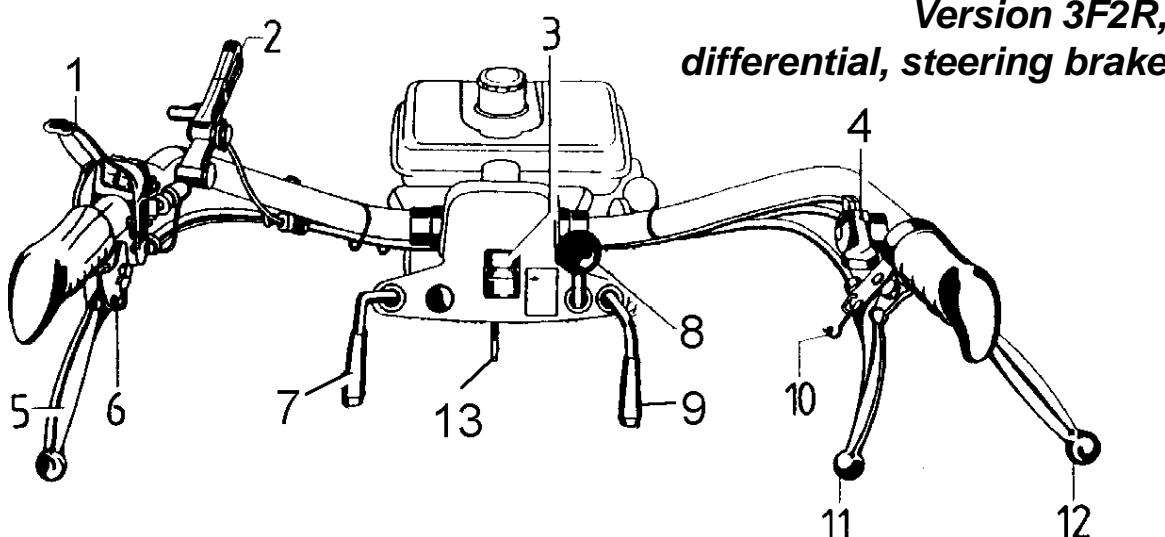
**B**

**Version 2F2R:  
rigid hexagonal wheel  
shaft**



**C**

**Version 3F2R,  
differential, steering brake**

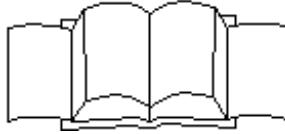


**Fig. A:**

- 1 Fuel tank
- 2 Fuel tank cap
- 3 Tool kit
- 4 Steering bar
- 5 Handlebar
- 6 Locking lever for steering handle side adjustment and swivel
- 7 Coupler pin
- 8 Hitch
- 9 W-clip
- 10 Locking lever for coupling attachment
- 11 Reversing lock bolt (safety bolt)
- 12 Coupling flange with integrated PTO
- 13 Weight mounting device and engine guard
- 14 Engine
- 15 Transmission oil filling opening and dipstick of basic machine
- 16 Name plate (Identification No.)  
(right, in travel direction)
- 17 Single-wheel brake drum
- 18 Wheel flange
- 19 Transmission oil drain plug

**Figure B and C**

- 1 Safety lever
- 2 Hand lever for differential lock
- 3 Locking lever for steering handle height adjustment
- 4 Speed control lever
- 5 Hand lever for engine clutch
- 6 Pawl for engine clutch
- 7 PTO speed shifter  
(gear shifter) = for rear attachment  
= for front attachment
- 8 Fast speed shifter
- 9 Gear shifter  
(PTO speed shifter) = for rear attachment  
= for front attachment
- 10 Pawl for single-wheel brake (for driving with mounted trailer)
- 11 Hand lever for single-wheel brake left = for rear attachment  
(Hand lever for single-wheel brake right) = for front attachment
- 12 Hand lever for single-wheel brake right = for rear attachment  
(Hand lever for single-wheel brake left) = for front attachment
- 13 Locking lever for steering handle side adjustment and swivel

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1

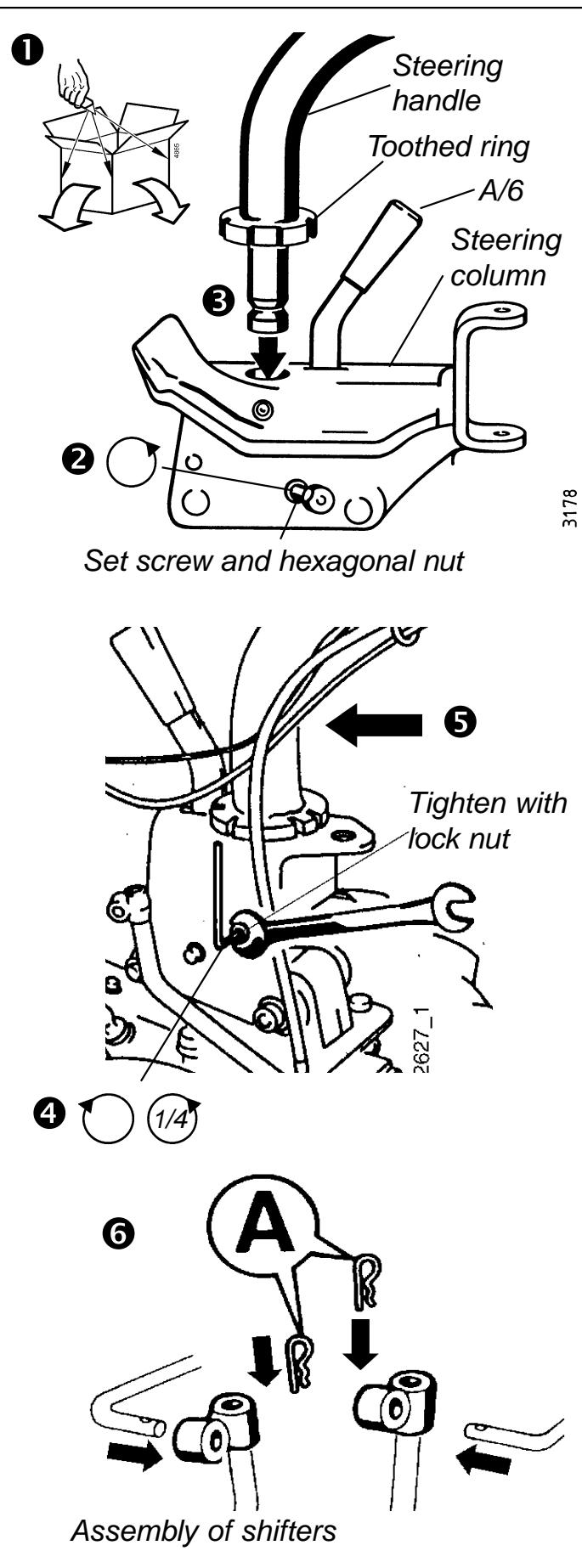
2

3

4

5

6



**1** Unpack the two-wheel tractor, fit the steering handle into the steering column:

**2** Screw out set screw and hexagonal nut (lock nut) until steering handle can fit into steering column.

**3** Fit steering handle into steering column – lever (A/6) must lock into toothed ring of steering handle.

**4** Screw in set screw until you feel slight resistance – then loosen set screw a quarter turn and lock with hexagonal nut.

**5** Place Bowden cables (hoeing/tilling attachment) on the left side (in travel direction) of steering handle and as depicted on pages 7 and 8.

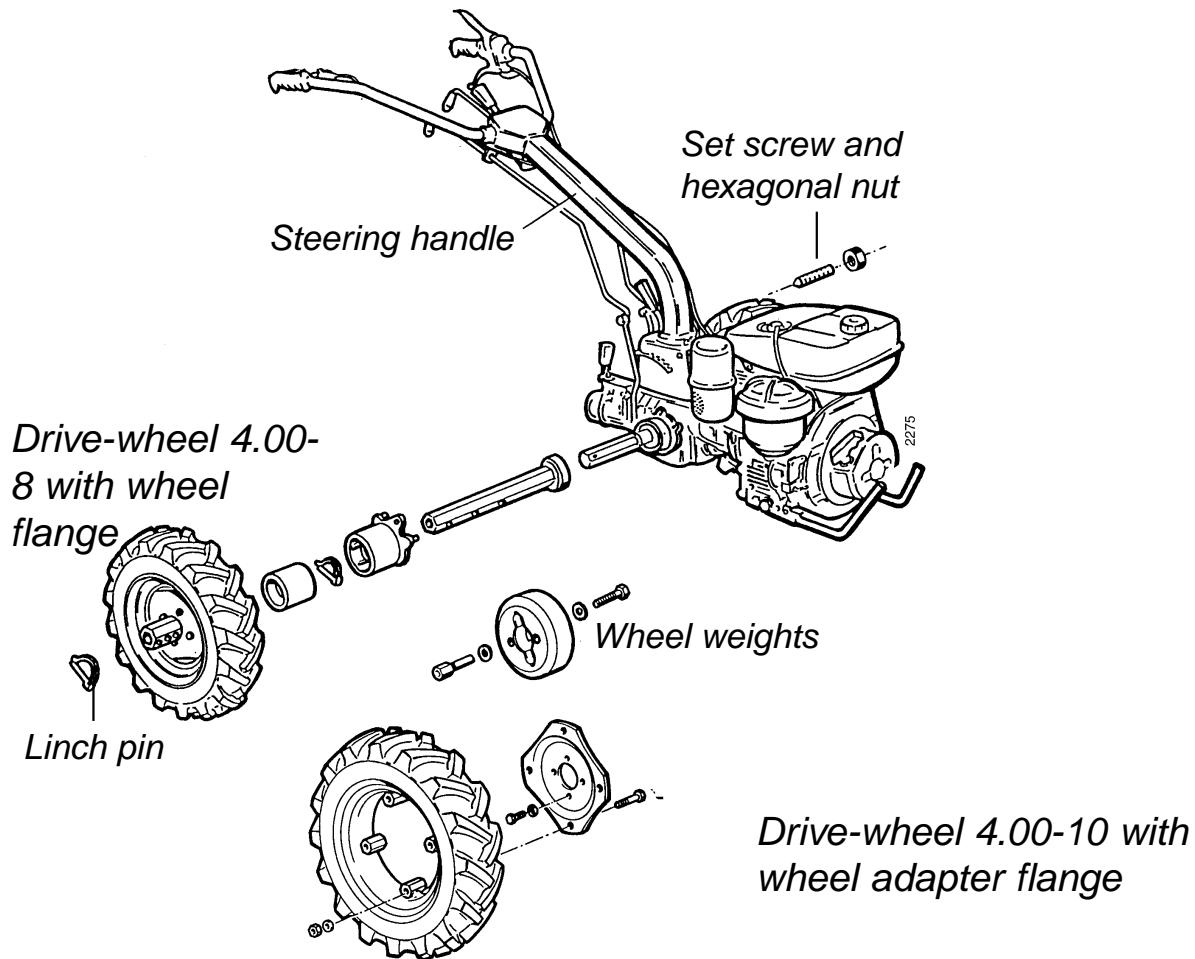
- Steering handle must swivel easily.

**6** Assemble shifters. For this purpose, insert shifters for PTO and gear shifters into joints of shift levers on gearbox and secure with W-clips (A).

# Assembly Instructions

agria

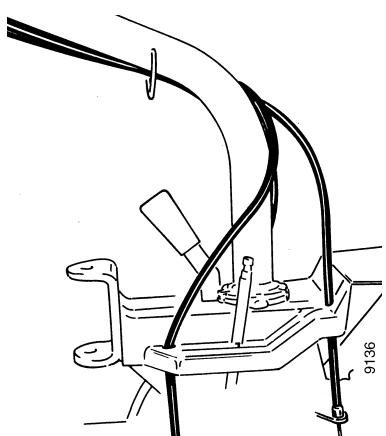
## Version 2F2R: rigid hexagonal wheel shaft



### ● Mounting drive-wheels:

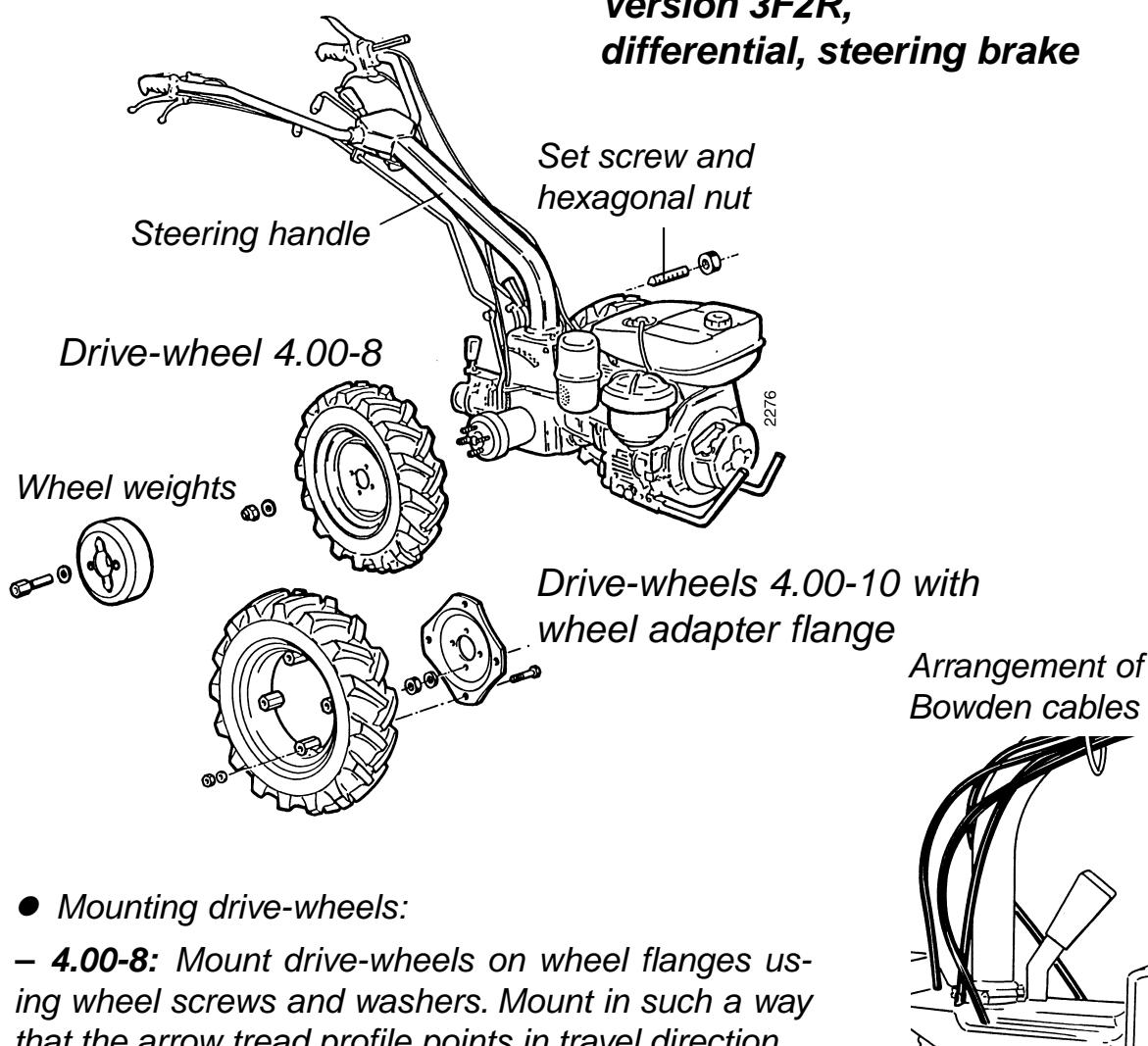
– **4.00-8:** Mount drive-wheels onto wheel flanges using wheel screws and washers. Slide wheels onto hexagonal wheel shaft in such a way that the arrow tread profile points in travel direction. Insert linch pin in holes of wheel hub and shaft. Then turn spring band around the axle.

– **4.00-10:** Screw wheel adapter flanges onto drive-wheels. Mount drive-wheels onto wheel flanges using wheel screws and washers. Slide wheels onto hexagonal wheel shaft in such a way that the arrow tread profile points in travel direction. Insert linch pin in holes of wheel hub and shaft. Then turn spring band around the axle.



Arrangement of Bowden cables

**Version 3F2R,  
differential, steering brake**

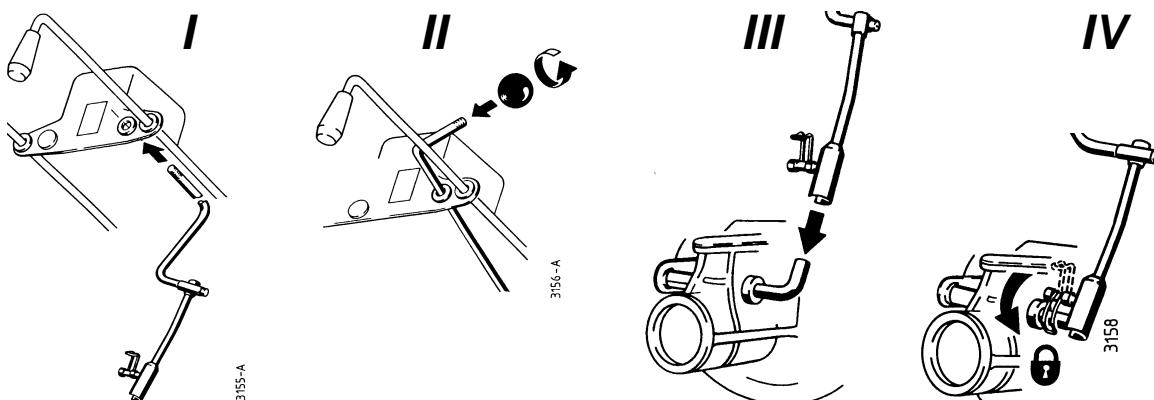


● **Mounting drive-wheels:**

- **4.00-8:** Mount drive-wheels on wheel flanges using wheel screws and washers. Mount in such a way that the arrow tread profile points in travel direction.
- **4.00-10:** Screw wheel adapter flanges onto drive-wheels. Then mount drive-wheels onto wheel flanges using wheel screws and washers in such a way that the arrow tread profile points in travel direction.

● **Assembly of fast speed shifter:**

Push shifter upwards through shifter guide ring (I), screw on ball handle (II), stick shifter onto gearbox shift lever (III) and secure with spring band (IV).



# **1. Safety Instructions**

**agria**

*Before starting the engine, read the operating instructions and note:*

## **Warning**



*This symbol marks all paragraphs in these operating instructions which affect your safety. Pass all safety instructions to other users and operators.*

## **Due Use**

*The two-wheel tractor is a hand-controlled automatic single-axle machine which can power and/or pull various implements approved by the manufacturer. Areas of application are for such as turning over the ground, mowing grass and meadowland, snow clearance and sweeping (due use).*

*Any other type of operation is considered undue. The manufacturer is not liable for any damages resulting from undue use, for which the risk lies with the user alone.*

*When the single-axle tractor/the all-purpose machine is used on public roads, the local national road traffic rules must be observed, e.g. reflectors, lights.*

*The single-axle tractor/The all-purpose machine is not intended for use with a trailer on public roads or as a tractor unit without implements.*

*Due use includes compliance with manufacturer's instructions on operation, maintenance and repair.*

*Any unauthorized changes to the two-wheel tractor render manufacturer liability null and void.*

## **General Instructions on Safety and Accident Prevention**

**1**

### **Basic Rule:**

*The standard accident prevention regulations must be adhered to, as well as all other generally accepted rules governing operational safety, occupational health and road traffic regulations.*

*For drives on public roads, the current traffic code applies.*

*Accordingly, check the two-wheel tractor for road and operational safety each time you take up operation.*

*Only persons familiar with the tractor and instructed on the hazards of operation are allowed to use, maintain and repair the tractor.*

*Teenagers of 16 years or younger may not operate the two-wheel tractor!*

*Only work in good light and visibility.*

*Operator's clothes should fit tight. Avoid wearing loose fitting clothes. Wear solid shoes.*

*Note the warning and instruction signs on the tractor for safe operation. Compliance is for your own safety.*

*When transporting the tractor on vehicles or trailers outside the area to be cultivated, ensure that the engine is turned off.*

*Careful with rotating tools – keep at a safe distance!*

# **1. Safety Instructions**

**agria**

**1**

*Beware of coasting tools. Before you start any maintenance or repair on them, wait until tools have come to a complete stop.*

*Foreign powered parts shear and crush!*

*Riding on the attachment during operation is not permitted.*

*Implements and their weight affect the driving, steering, braking, and tip-over characteristics of the tractor. Therefore, ensure steering and braking functions are sufficient. Match operating speed to conditions.*

*Do not change settings of governor. High engine speed increases risk of accidents.*

## **Working Area and Dangerous Area**

*The user is liable to third parties working within the tractor's working range.*

*Staying in hazardous area is not permitted.*

*Check the immediate surroundings of the tractor before you start it. Watch out for children and animals.*

*Before you start work, clear the area from any foreign object. During operation, always watch out for further objects and remove them in time.*

*For operation in enclosed areas, ensure that a safety distance is kept to enclosures to prevent damage to tools.*

## **Operation and Safety Devices**

### **Before you start the engine**

*Become familiar with the devices and operating elements and their functions. Above all, learn how to turn the engine off quickly and safely in an emergency.*

*Ensure that all protective devices are mounted and positioned to provide protection.*

*With no implement mounted, make sure PTO-shaft is covered with the protective cap.*

### **Starting the engine**

*Do not start engine in closed rooms. The carbon monoxide contained in the exhaust fume is extremely toxic when inhaled.*

*Before you start the engine set all operating elements to neutral or idling position.*

*For starting the engine, do not step in front of the two-wheel tractor and the implement.*

*Do not use assist-starting liquids when using electrical assist-starting devices (jumper cable). Danger of explosion.*

### **Operation**

*Never leave the operator's position at the steering handle while tractor is at work.*

*Never adjust the operating handles during work – danger!*

# **1. Safety Instructions**

**agria**

*During operation do not leave the operator's position at the steering handle, especially not when you turn the machine.*

*Riding on the implement during operation or in transport is not permitted.*

*If clogging occurs in the implement, turn off the engine and clean the implement with an appropriate tool.*

*In case of damage to the two-wheel tractor or to the implement, immediately turn off the engine and have it repaired.*

*If steering causes problems, immediately bring the two-wheel tractor to a halt and turn it off. Have the malfunction removed without delay.*

*To prevent the tractor from sliding on slopes make sure it is secured by another person using a bar or a rope. This person must be located at a higher position than the vehicle at a safe distance from the attachment at work.*

*If possible, always work diagonally to the slope.*

## **End of Operation**

*Never leave the two-wheel tractor unattended with the engine running.*

*Before you leave the two-wheel tractor, turn off the engine. Then close fuel taps.*

*Secure two-wheel tractor against unauthorized use. If tractor is equipped with ignition key, remove the key. For all other versions, remove spark plug connector.*

## **Implements**

*Only mount implements with the engine and PTO switched off.*

**1**

*Always use appropriate tools and wear gloves when changing implements and parts thereof.*

*For mounting and removing implements bring support leg into proper position and ensure stability.*

*Secure two-wheel tractor and implements against rolling off (parking brake, wheel chocks).*

*Beware of injuries while coupling implements.*

*Hitch implements as specified and only couple at specified points.*

*Secure two-wheel tractor and implement against unauthorized use and rolling off when you leave the machine. If necessary, install transport or security devices and secure.*

## **Hoeing Attachment**

*Adjust protective cover of hoeing attachment so that only those parts of tools which penetrate the soil are not covered.*

*When hoeing, make sure hoeing skid is adjusted properly.*

# **1. Safety Instructions**

**agria**

## **Mowing Implement**

**1**

*Handle with care! Sharp blades of the cutter bar may cause injuries! Remove protective knife strips only for mowing and refit immediately after work has finished.*

*For transport and storage always mount the protective knife strips. Secure finger bars additionally with tension springs.*

*Do not transport the removed cutter bar without protective strips.*

*When mounting and removing the cutter bar, make sure all blades are protected by the knife strip.*

*To exchange the knife and to mount/remove the knife head, make sure that you turn screws away from cutting blades.*

*For grinding the mowing knives, always wear safety goggles and gloves.*

## **Trailer**

*Make sure to not exceed permissible tongue load of trailer coupling, floating drawbar or hitch.*

*When coupling the drawbar, make sure manoeuvrability at coupling point is sufficient.*

*Do not exceed gross axle weight rating, towing capacity and gross weights.*

*Before driving, check brake function and rear lighting for proper operation.*

*Regularly check brake systems closely.*

*Have adjustments and repairs on the brake system carried out by a professional workshop or an authorized brake service station only.*

*When driving with mounted trailer, do not use single-wheel braking.*

*On tractors equipped with single-wheel transmission do not engage single-wheel transmission. Single-wheel transmission must be locked!*

*For tractors equipped with differential lock; do not use differential lock when driving in curves.*

*Only one passenger may ride on the trailer, provided a safe passenger seat is available.*

*No additional passengers may be carried.*

*When driving downhill, shift into lower gears in time. On slopes never de-clutch to change gears.*

## **Weights**

*Fit weights properly and at specified points.*

# **1. Safety Instructions**

**agria**

## **Maintenance**

*Never carry out any maintenance or cleaning with the engine running.*

*Before you work on the engine, always remove spark plug connector (petrol engine only).*

*Check regularly and, if necessary, replace all protecting devices and tools subject to wear and tear.*

*Replace damaged cutting tools.*

*Always wear safety gloves and use proper tools when exchanging cutting tools.*

*Do not carry out repairs like welding, grinding, drilling, etc. on structural and safety-relevant parts (e.g. steering handle, coupling devices)!*

*Keep two-wheel tractor and implement clean to avoid risk of fire.*

*Check nuts and screws regularly for tight fit and re-tighten, if necessary.*

*Ensure that you re-install all safety and protective devices and adjust them properly after maintenance and cleaning.*

*Only use original agria spare parts. All other commercial spare parts must correspond to quality and technical requirements specified by agria.*

## **Storage**

*It is not allowed to store the two-wheel tractor in rooms with open heating.*

*Never park the two-wheel tractor in closed rooms with fuel left in tank. Fuel vapours are hazardous.*

## **Engine, Fuel, and Oil**

*Never let the engine run in closed rooms. Extreme danger of intoxication! For the same reason, also replace damaged exhaust pipe immediately.*

*Be careful when dealing with fuel. Great danger of fire! Never refill fuel close to open fire, inflammable sparks or hot engine parts. Do not refill fuel in closed rooms. Do not smoke when refilling!*

*Refill only with the engine switched off and cooled down.*

*Do not spill any fuel, use a proper filling device (e.g. funnel).*

*In case of fuel-spillage, pull the two-wheel tractor away from the spillage before you start the engine.*

*Make sure fuel is of specified quality.*

*Store fuel in approved cans only.*

**1**

# 1. Safety Instructions

1

Liquids leaking under high pressure, e.g. fuel, can penetrate the skin and cause severe injuries. Immediately see a doctor.

Store anti-corrosive agents and stabilizing liquids out of reach of children. If sickness and vomiting occur, see a doctor. If fuel has contacted eyes, rinse them thoroughly, avoid inhaling of vapours.

Read and observe enclosed instructions.

Before you dispose of opened and seemingly empty pressurised tins (e.g. of assist-starting liquids) make sure they are completely empty. Empty them in ventilated places safe from spark formation or flames. If necessary, dispose of tins in hazardous waste deposits.

Be careful when draining hot oil, danger of burns.

Make sure oil used is of specified quality. Storage is in approved cans only.

Dispose of oil, greases, and filters separately and properly.

## Tyres and Tyre Air Pressure

When working on tyres, make sure two-wheel tractor is parked properly and secured against rolling off.

Any repairs are to be carried out by trained mechanics only and with the appropriate tools.

Regularly check tyre air pressure. Excessive pressure may cause bursts.

Use appropriate tyre air pressure for operation with implements.

Re-tighten fastening screws of drive-wheels or check tightness when doing maintenance work.

## Electrical System and Battery

When working on the electrical system, make sure the battery is disconnected (negative pole) (for tractors equipped with battery).

Make sure to connect battery properly – first connect positive pole and then negative pole. Disconnect in reverse order.

Be careful with battery gases – explosive!

Avoid spark discharge and open flames near batteries.

Remove plastic cover (if included) to recharge battery to prevent highly explosive gases from building up.

Careful when handling battery acid!

Only use specified circuit breakers. Strong circuit breakers will destroy the electrical system – danger of fire.

Always cover positive pole with specified cover or terminal cap.

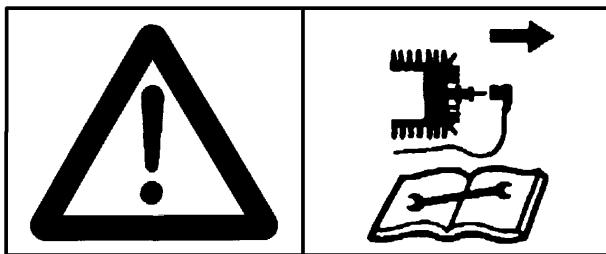
Persons having a pacemaker may not touch live parts of the ignition system when the engine is running.

# 1. Safety Instructions

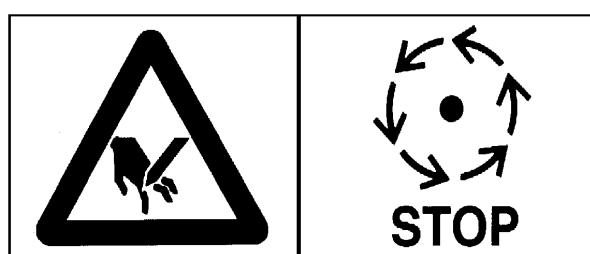
agria

## Explanation of Warning Signs

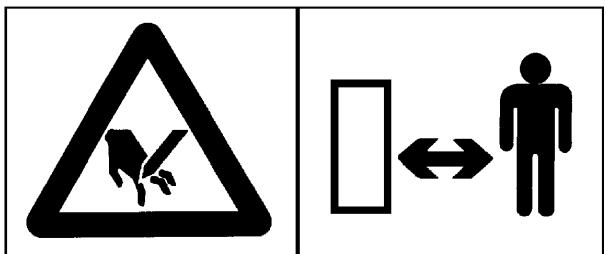
1



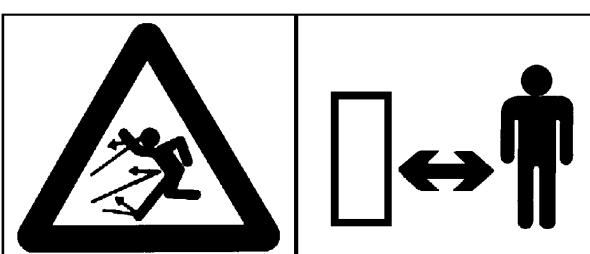
*Before any cleaning, maintenance, and repair work switch off the engine and pull spark plug connector.*



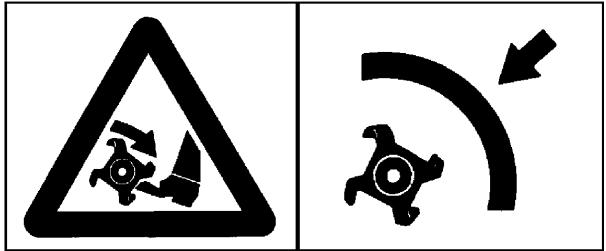
*Do not touch moving machinery parts. Wait until they have come to a complete stop.*



*With engine running, keep at a safe distance from cutting or hoeing tools.*



*With engine running, keep at a safe distance from tractor.*



*Do not work without protective covers mounted. Before starting the engine, bring covers in proper position.*

### Signs



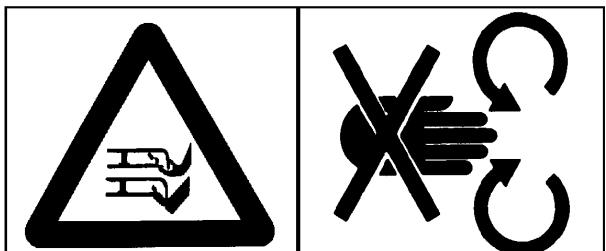
*When working with the machine, wear individual protective ear plugs.*



*Wear protective gloves.*



*Wear solid shoes.*



*With engine running, keep at a safe distance from cutting knife.*

## 2. Specifications

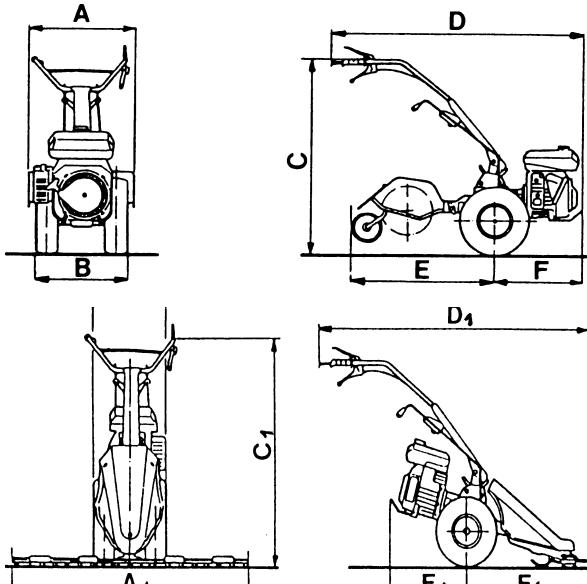
**agria**

### Two-Wheel Tractor

Dimensions: (mm)

2

Dimension	Version	
	2V2R	3V2R
A	605	605
A <sub>1</sub>	1170	1170
B	4.00-8 4-00-10	450-730 480-710
C	800-1000	800-1000
C <sub>1</sub>	760-1010	760-1010
D	1650	1650
D <sub>1</sub>	1715	1715
E	790	790
E <sub>1</sub>	575	575
F	595	595
F <sub>1</sub>	755	755



#### Track width, version 2F2R: [mm]

##### Tyres:

- ..... 4.00-8 (field tyre)
- ..... or 4.00 -10 (field tyre)

Tyre air pressure ..... 1.2 bar

4.00-8 ..... 352-632

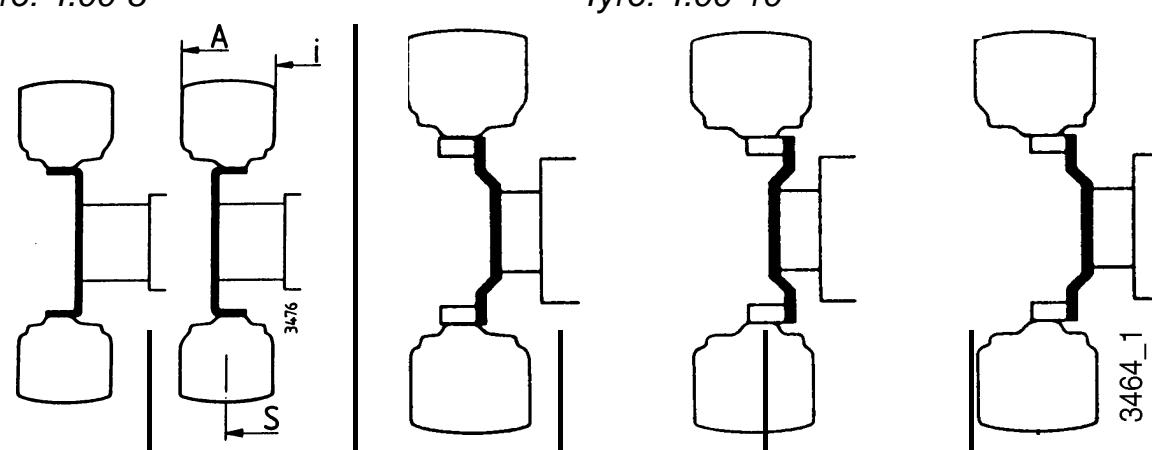
4.00-10 ..... 380-610

To adjust track width slide wheel hub on hexagonal wheel shaft accordingly and mount drive-wheels on their inner or outer side as required.

#### Track width version 3F2R: [mm]

Tyre: 4.00-8

Tyre: 4.00-10



A	S	i	A	S	i	A	S	i	A	S	i	A	S	i
495	392	290	395	295	190	550	440	330	520	410	300	490	380	270

## 2. Specifications

**agria**

**Clutch:** ..... Disc dry clutch    **PTO:** ..... 1028 rpm

### Gearbox:

**Version 2F2R** .... Mechanical gearbox,  
2 forward and 2 reverse speeds

Tyre	Travel Speeds [km/h]			
	Rear attachment		Front attachment	
	Gear		Gear	
	1	2	1	2
4.00-8 forward	1.3	2.4	2.1	3.9
4.00-8 reverse	2.1	3.9	1.3	2.4
4.00-10 forward	1.5	2.7	2.5	4.1
4.00-10 reverse	2.5	4.1	1.5	2.7

**Version 3F2R** .... Mechanical gearbox,  
3 forward and 2 reverse speeds  
(3rd gear with rear attachment only)  
single-wheel brake on both wheels  
differential, lockable

Tyre	Travel Speeds [km/h]			
	Rear attachment			Front attachment
	Gear			Gear
	1	2	3	1
4.00-8 forward	1.3	2.4	7.0	2.1
4.00-8 reverse	2.1	3.9		1.3
4.00-10 forward	1.5	2.7	7.8	2.5
4.00-10 reverse	2.5	4.1		1.5
				2.7

### Transmission oil:

Filling quantity approx. ..... 1.5 l

Transmission oil ... SAE 90 - API - GL5  
(e.g. BP Energear Hypo)

at engine speed of 3600 rpm  
gear independent  
(integrated in coupling flange)  
direction of rotation: right-hand  
(clockwise), looking on PTO,  
constant in forward and reverse  
20 mm tooth profile

**2**

**Attachment coupling:** ..... Ø 47 mm

**Steering handle:** ..... height and side  
adjustable without tools  
swivels 180° for front attachment

### Vibration acceleration values:

on handlebar: .....  $a_{hw} < 2.5 \text{ m/s}^2$   
in accordance with ISO 5349 at 85% of  
rated engine speed with tool at work.

### Weights:

**Curb Weight:** with drive-wheels

Version 2F2R ..... 61.5 kg

Version 3F2R ..... 69.5 kg

Permissible total weight ..... 150 kg

Permissible tongue load

on coupling point: ..... 55 kg

## **2. Specifications**

**agria**

**2**

### **Engine**

**Manufacturer:** ..... Robin  
**Type:** ..... EH 17 D  
**Version:** ..... Fan-cooled 1-cylinder-  
4-stroke engine (petrol)  
**Bore:** ..... 67 mm  
**Stroke:** ..... 49 mm  
**Cubic capacity:** ..... 172 ccm  
**Output:** ..... 4.0 kW  
at 3600 rpm  
**Torque:** ..... max 11 Nm  
at 2600 rpm  
**Spark plug:** ..... Bosch WR7AC  
NGK BR 6 HS  
**Electrode gap:** ..... 0.6–0.7 mm

#### **Ignition system:**

Contactless electronic magnet ignition,  
ignition point is pre-set, radio remote  
screened according to VDE 0879

#### **Valve lash (engine cold)**

**Intake:** ..... 0.08–0.11 mm  
**Outlet:** ..... 0.08–0.11 mm  
**Starter:** ..... Recoil starter

**Fuel tank capacity:** ..... approx. 3.6 l

**Fuel:** ..... Commercial petrol  
octane number min. 90 RON  
(refer to fuel recommendations)

**Air filter:** ..... Dry filter element  
with foamed preliminary filter

**Carburetor:** ..... Horizontal throttle float  
carburetor

#### **Mix Control Screw:**

Base setting approx. 1 3/8 revs. open

**Main jet:** ..... 105

**Idle jet:** ..... 50

**Rated speed:** ..... 3600 rpm

**Top no-load speed:** ..... 3800 rpm

**Idling speed:** ..... 1200 rpm

#### **Engine oil:**

**Filling quantity:** ..... approx. 0.65 l

Multi-grade oil SAE 10W-40 API-SC or  
higher quality

#### **Operability on Slopes:**

Engine is suited for use on slopes (with  
oil level at "max" = upper level mark)

Continuous operation  
possible ... up to 45° inclination (100%)

#### **Noise level:**

Noise level  
at operator's ear ..... 80 dBA  
(in accordance with EN 709)

### **3. Devices and Operating Elements**

**agria**

The two-wheel tractor agria 3600 is a basic motorised unit and is always used with an implement. Therefore it is most suitable for normal use in landscape gardening and in agriculture and forestry work for such as turning over the ground, mowing grass and meadowland, snow clearing and sweeping.

When the single-axle tractor/the all-purpose machine is used on public roads, the local national road traffic rules must be observed, e.g. reflectors, lights.

**Available attachments:**

- Rear attachments for, e.g.:
  - hoeing and tilling
  - draft implements for soil cultivation
  - two-wheel trailer
  - gravel and salt spreading
- Front attachments for, e.g.:
  - mowing
  - sweeping
  - snow clearing and tilling
  - gravel and salt spreading.

For a choice of further attachments refer to our price-list.

## **Engine**

- The four-stroke petrol engine runs on commercial petrol (refer to fuel recommendations p4).

### **Ignition System**

The engine is equipped with a contactless ignition system. We recommend to have necessary check-ups done by an expert only.

During the first 20 operating hours (break-in period) do not use engine to maximum power.

**Even after break-in period** never use engine at higher speed than necessary for the work in hand.

**i** **High engine speed is harmful to any engine and considerably affects its durability. This applies especially for no load operation. Any overspeed (have the engine roar) can result in immediate damage.**

### **Cooling System**

Cooling system is fan-cooled. Therefore keep screen at recoil starter and cooling ribs of cylinder clean and free from sucked-in plant trash.

**3**

### **Idling Speed**

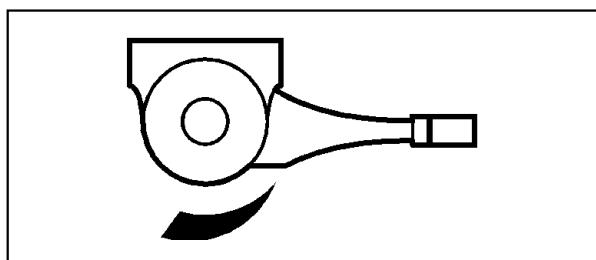
Always ensure that idling-speed is adjusted correctly. At low speeds and with the speed control lever set to idle, the engine is supposed to run smoothly and without run-out.

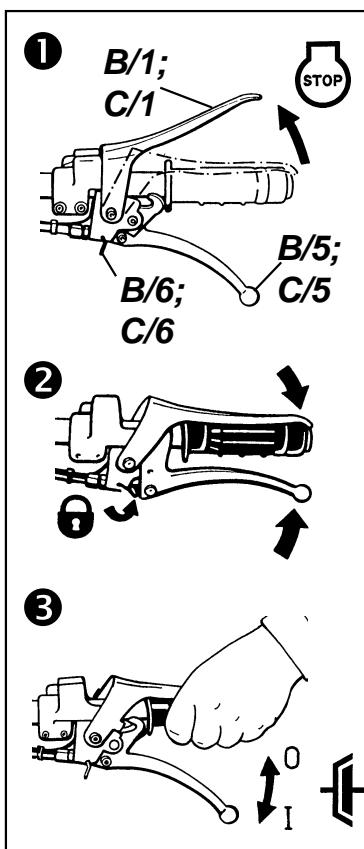
### **Air Filter**

The air filter purifies the air intake. A clogged filter reduces engine output.

### **Speed Control Lever**

The speed control lever (B/4 and C/4) on the steering handle is for stepless control of engine speed from min = IDLING to max = FULL THROTTLE to fit requirements.





3

## Safety Circuit

**1 Stop position:** When releasing the lever (B/1 and C/1), the ignition system is switched off (engine is off). Beware – engine keeps running due to centrifugal mass!

**2 Start position:** For starting the engine and for short breaks, press the safety lever (B/1 and C/1), pull the clutch lever (B/5 and C/5) and lock with pawl (B/6 and C/6).

**3 Operating position:** To operate the machine, press safety lever (B/1 and C/1).

**⚠ Do not fasten safety lever.**

**i** The safety lever also serves **to switch off in an emergency**. Release the safety lever for fast engine switch-off. The lever automatically goes to STOP position.

## Clutch

The disc dry clutch is operated via the hand clutch lever (B/5 and C/5).

With hand clutch lever pulled, the clutch is decoupled, i.e. the engine stops driving the two-wheel tractor.

Watch for the correct clutch play to avoid clutch slip-

**i** With the engine running, do not park the tractor for an extended period of time while the clutch is pulled because this may result in damage to the clutch release bearing.

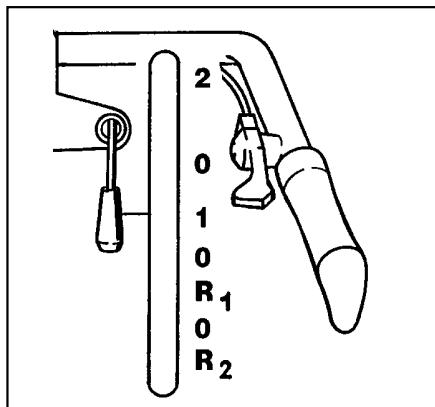
With the engine stopped, always park the two-wheel tractor with the hand lever pulled (pawl is locked into place), otherwise clutch problems may occur due to corrosion.

## Gearbox

### Version 2F2R

The machine is equipped with a mechanical gearbox with

- 2 forward and 2 reverse speeds,
- a rigid hexagonal wheel shaft.



#### Changing Gears

Gear change is via gear shifter (B/9). There is neutral position between the various gears.

There are neutral positions between the various gears.

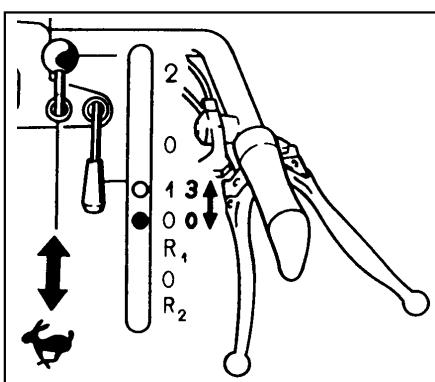
The position of the shift lever on the shift gate indicates the gear engaged.

3

### Version 3F2R

The machine is equipped with a mechanical gearbox with

- 3 forward and 2 reverse speeds,
- lockable differential,
- single-wheel brakes.



#### Changing Gears

The gears 1–2 and R1–R2 are changed via the gear shifter (C/9).

There are neutral positions between the various gears.

The 3rd gear ("fast speed") is activated with the special range (C/8).



For safety reasons, engagement of fast speed is only possible when the machine is in forward speed (rear attachments). For mounting front attachments, remove the fast speed shifter and block gear change.

The position of the shift lever on the shift gate indicates the gear engaged.

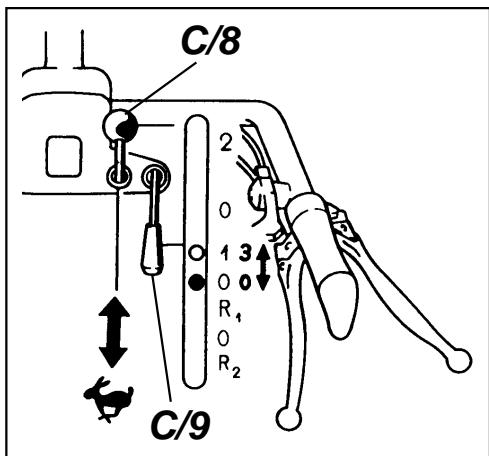
- i** Only change gears when engine is halted (decoupled).  
With the steering handle swivelled 180° (for front attachments), the shifters .....for gears and PTO change sides.



#### Fast Speed

##### For version 3F2R

For transport drives the 3rd speed (fast speed) can be engaged.



3

- For this purpose, mount fast speed shifter (C/8).



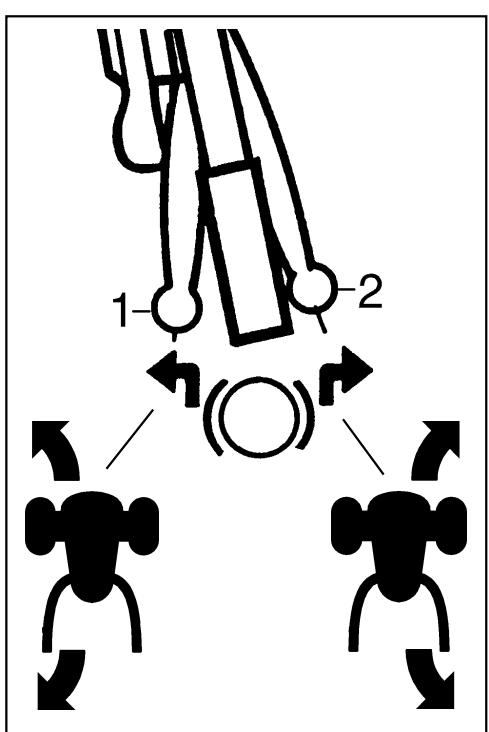
- Move shifter (C/9) to position "0" between 1st and R1 gear.
- Move fast speed shifter (C/8) to position "fast" (pull gear shifter backwards).
- Move gear shifter to position "3".
- To change down, proceed in reverse order.
- To change direction, first move gear shifter to neutral and then disengage "fast speed".

#### Single-wheel brake (turning aid)

##### for version 3F2R

For easier steering and turning, the two-wheel tractor is equipped with single-wheel brakes.

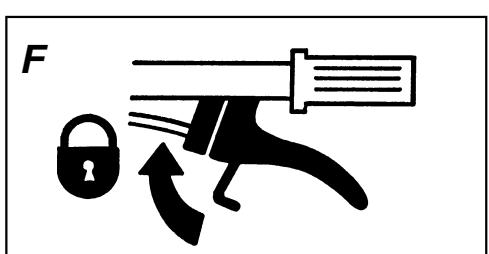
Engage brakes with hand levers (1 and 2).



**⚠ With steering handle swivelled 180° (front attachment), turning procedure is vice versa.**



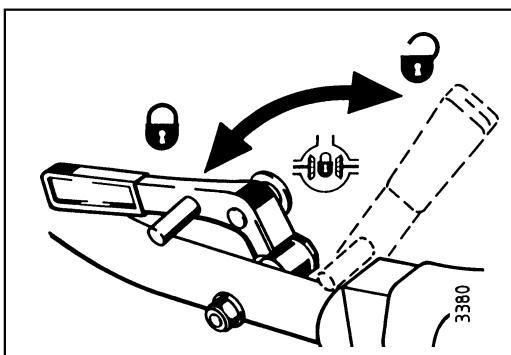
**When turning on banks, always turn the machine towards the slope.**



**⚠ When driving with mounted trailer, do not use single-wheel braking. The levers for single-wheel braking must be secured with pawl (fig. F) to prevent brakes from being engaged.**

#### Differential Gear

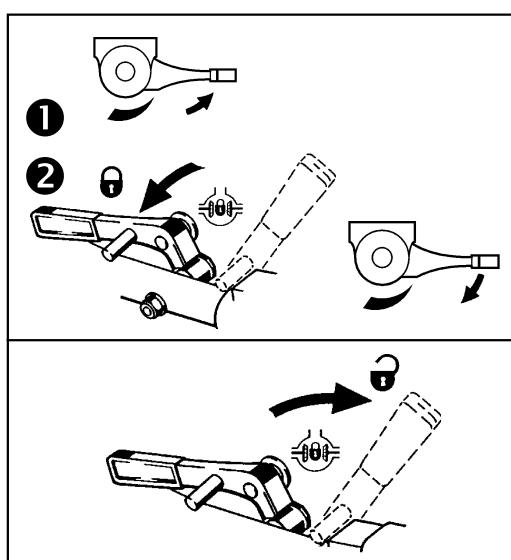
##### Version 3F2R



To improve traction in severe conditions, differential gear can be locked. The hand lever for engaging/disengaging differential lock is located on the right side of the handlebar.

**i** For drives with mounted trailer, the differential lock should be disengaged (especially for driving in curves) to ensure easy steering.

Keep differential gear locked only as long as it is necessary.



#### Engaging differential lock

(rigid wheel shaft)

while driving:

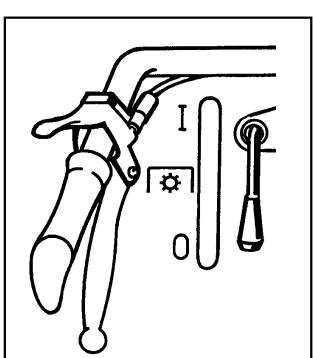
**1** release throttle

**2** move hand lever for differential lock (C/2) forward while pressing the throttle

#### Disengaging differential lock

• move hand lever for differential lock backward

**3**



#### PTO

The gear independent PTO (A/12) is integrated into the coupling flange. PTO is turned on/off via the PTO shifter (B/7 and C/7).

Only change PTO speed when the machine is decoupled.

**i** When steering handle is swivelled 180°, PTO shifter and gear shifter change sides and gear change is vice versa!



#### Reversing Lock

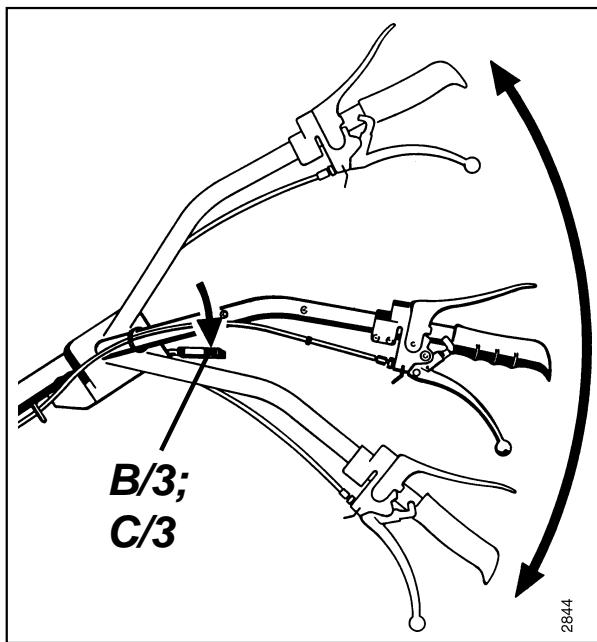
The reversing lock (safety bolt) prevents PTO from being engaged for hoing while the tractor is in reverse. Also, it prevents reverse gear from being engaged while PTO is at work.

**i** For mounting the hoeing attachment, pull safety bolt out entirely



For mounting the mowing attachment, push safety bolt in entirely



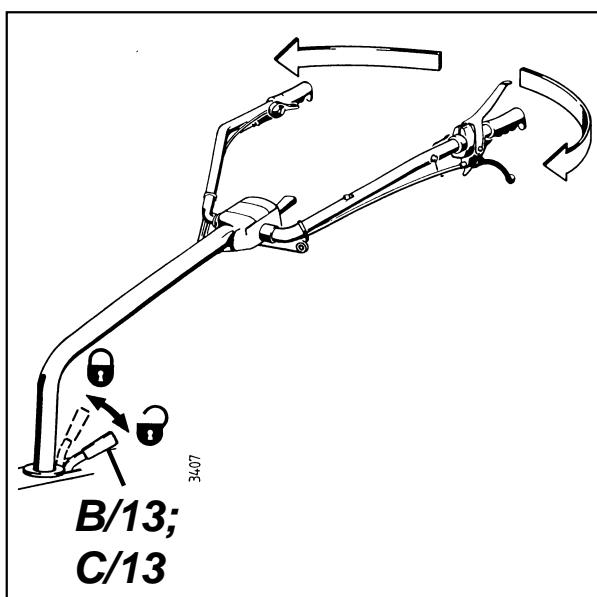


3

#### Steering Handle

##### Steering Handle Height Adjustment

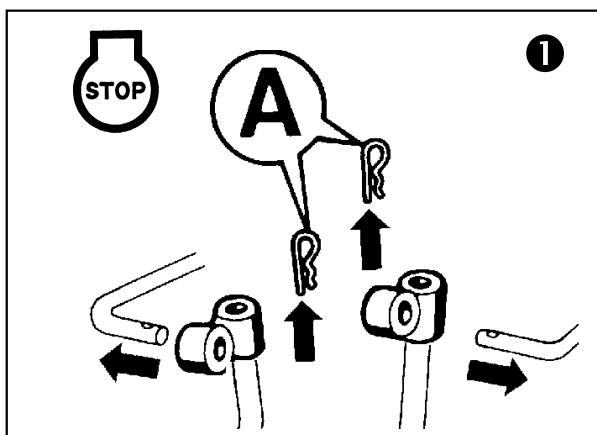
- Press down locking lever (B/3 and C/3), until notches are free.
- Adjust handlebar to desired height.
- Release locking lever and fit handlebar into proper notch, so that locking lever swivels back into its original position.



#### Steering Handle Side Adjustment

You can swivel the steering handle from its normal position (centre position) approx. 30° to the left or right.

- Push swivel control lever (B/13 and C/13) backwards and swivel steering handle to the left or right into desired position (fig. F).
- Push swivel control lever forwards and lock into appropriate notch on steering handle.



#### Swivel Steering Handle – 180°

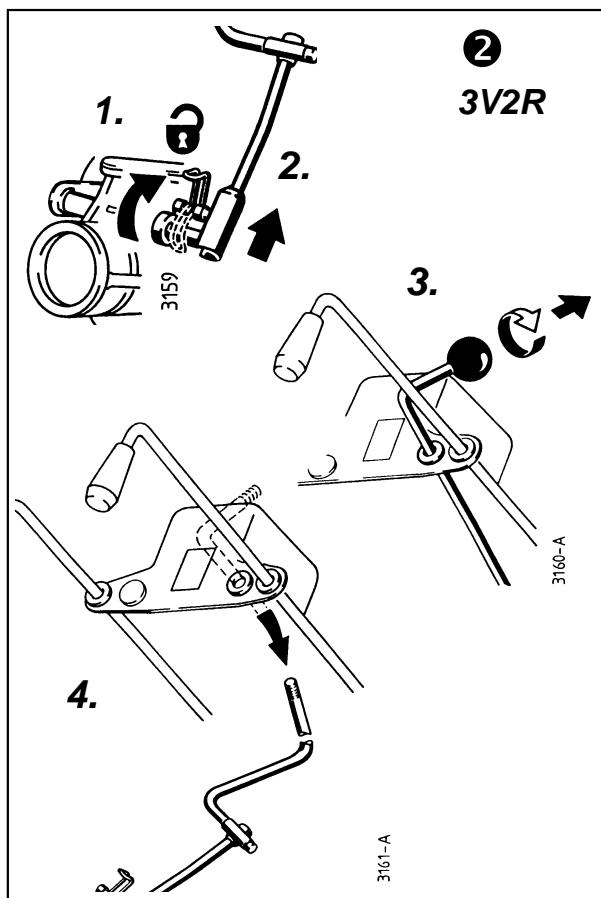
For mounting front attachment:

**⚠ Only swivel steering handle when the engine is turned off.**

- ① Remove W-clips (A) from shifters.
- Remove shifters from joints.

### 3. Devices and Operating Elements

**agria**



**2** dismount fast speed shifter:

(only for version 3F2R)

1. Open spring band on shifter.
2. Remove shifter by pulling it upwards.
3. Screw off ball handle from shifter.
4. Pull out shifter from shift gate and store.

**3** Push swivel control lever (B/13 and C/13) backward. At the same time swivel steering handle 180° clockwise.

**4** Push swivel control lever forward and lock into appropriate notch on steering handle.

**3**

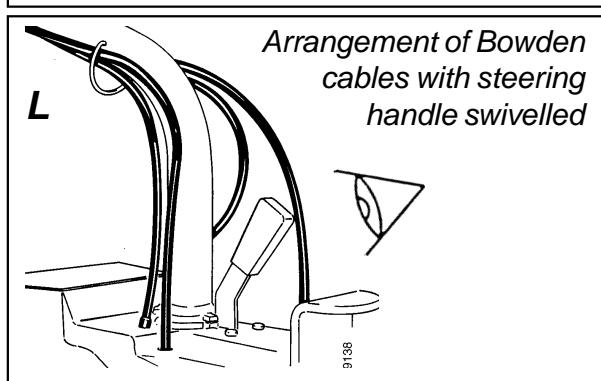
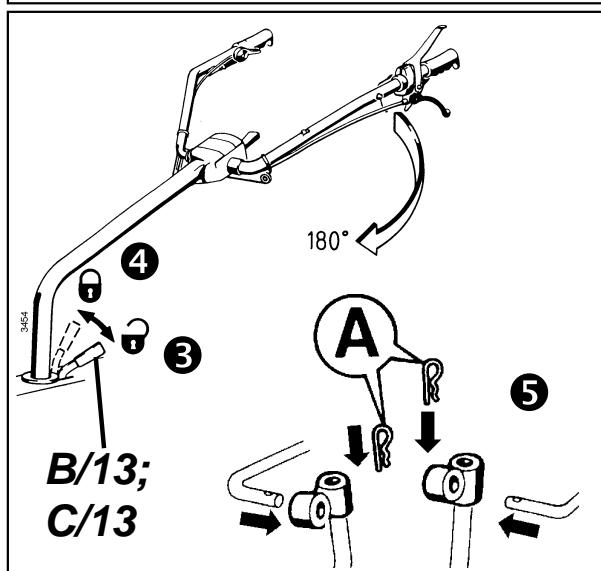
**5** Reconnect both shifters with outer shift levers and secure with W-clips (A).  
**Note:** Make sure Bowden cables are not twisted when you swivel the steering handle (fig. L).

**Note:** The gear shifter is now located on the left side and the PTO shifter on the right side of the handlebar.

Also, PTO shifting and single-wheel braking is vice versa



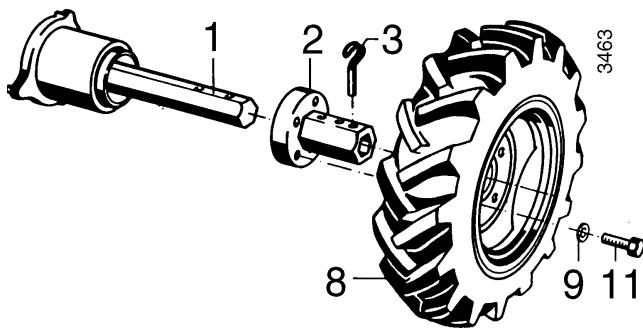
Steering handle side adjustment (approx. 30°) is also possible when the steering handle is swivelled 180°.



#### Swivel Steering Handle Back to Original Position

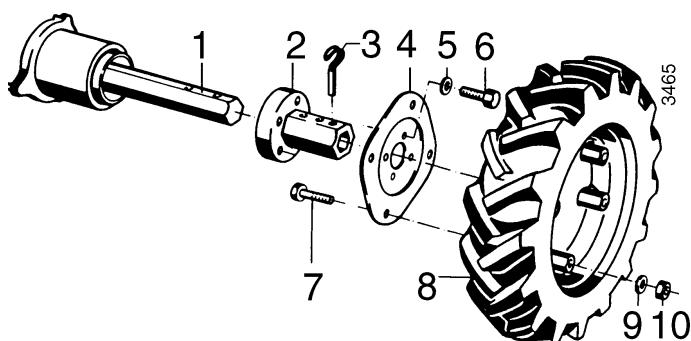
Proceed in same order, but swivel anti-clockwise. For version 3F2R mount fast speed shifter.

#### 2F2R with drive-wheels 4.00 - 8



3

#### 2F2R with drive-wheels 4.00 - 10



- 1 Hexagonal wheel shaft
- 2 Hexagonal wheel flange
- 3 Linch pin
- 4 Wheel adapter flange
- 5 Washer
- 6 Wheel screw
- 7 Hexagonal screw
- 8 Drive-wheel
- 9 Washer
- 10 Wheel nut
- 11 Wheel screw

### Drive-Wheels

#### Version 2F2R = Hexagonal Wheel Shaft

The wheel flanges (2) are fitted on the hexagonal wheel shafts (1) and are held by linch pins (3) which are inserted into the appropriate hub and wheel shaft holes.

Use wheel screws (6) and washers (5) to mount the appropriate drive-wheels (8) onto wheel flanges.

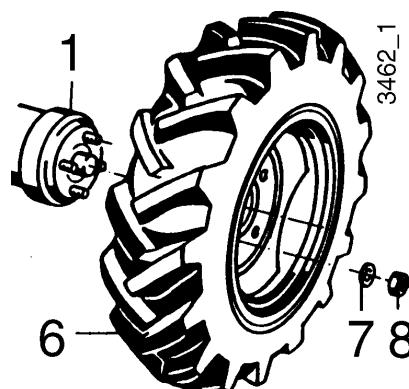
For fastening the wheel on the shaft, there are two holes on each end of the wheel shaft and 3 holes (for linch pin) on the wheel flange. To mount the wheel at the required track width slide it on the wheel shaft to the appropriate position.

**⚠ Fit spring band of linch pin backwards in travel direction, turn it around the axle and lock into place.**

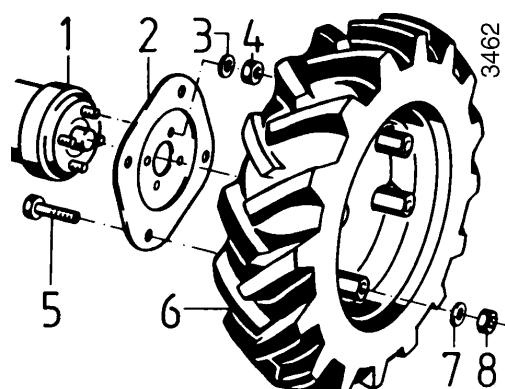
For variable track width from 352mm to 632mm, the wheels can be mounted either on their inner or outer sides.

For full tractive power, mount wheels with pointed parts of lugs showing in driving direction (wheels seen from above). This applies also when the steering handle is swivelled 180° for front attachments.

#### 3F2R with drive-wheels 4.00 - 8



#### 3F2R with drive-wheels 4.00 - 10



- 1 Wheel flange
- 2 Wheel adapter flange
- 3 Washer
- 4 Wheel nut
- 5 Hexagonal screw
- 6 Drive-wheel
- 7 Washer
- 8 Wheel nut

#### Version 3F2R = brake drum/wheel flange with double end studs

Use wheel nuts (8) to mount the appropriate drive-wheels (6) on the wheel flanges (1).

For drive-wheels 4.00 - 10, first mount wheel adapter flanges (2) onto drive-wheels.

Track width is adjustable to fit requirements (see track width plan p16). Accordingly, mount drive-wheels onto wheel flanges or drive-wheels onto wheel adapter flanges (flanges or wheels turned inward or outward and mounted on their inner or outer sides onto wheel adapter flanges).

**3**

For full tractive power, mount wheels with pointed parts of lugs showing in driving direction (wheels seen from above). This applies also when steering handle is swivelled 180° for front attachments.

#### Wheel Fastening Screws

**Version 2F2R:** Wheel screws with washers

**Version 3F2R:** Double end studs with washers and wheel nuts

After the first 2 operating hours re-tighten wheel screws or wheel nuts at **50 Nm**. This applies for commissioning new machines and after a wheel change. Otherwise, re-tighten wheel screws and wheel nuts each time you do maintenance work.

#### Drive-Wheels Usage

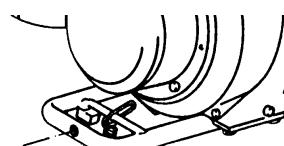
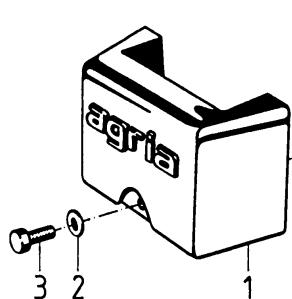
Tyre	Profile	Usage	Item no.
4.00-8	Field tyre	Tilling, ridging mowing, sweeping winter service operation	3690 011
4.00-10	Field tyre	Ploughing, tilling	3690 021

#### Snow Chains

When working with snow chains fitted to wheels, observe manufacturer's instructions, make sure there is sufficient clearance between chains and machine parts.

#### Front Weights and Wheel Weights

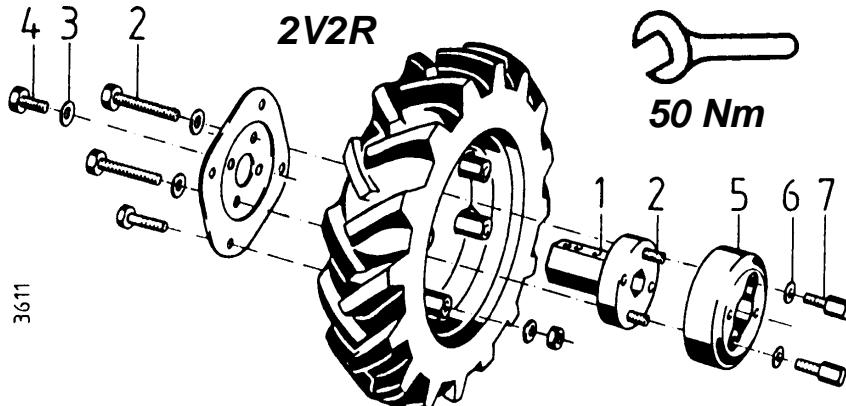
To improve traction fit front weights and wheel weights.



##### Mounting Front Weight

Item No. 3228 011

**3**



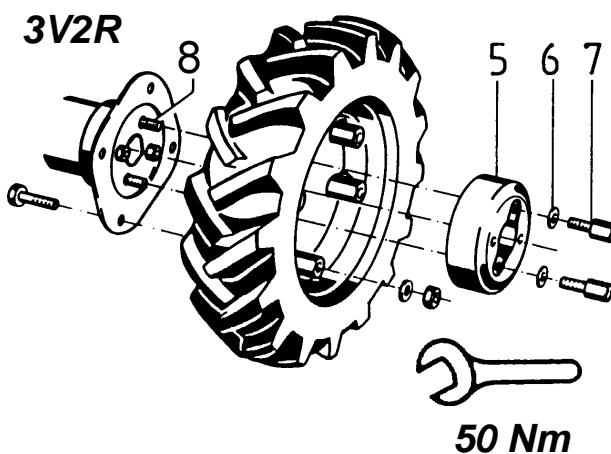
##### Version 2F2R hexagonal wheel shaft:

- Remove drive-wheels.
- Fit the wheel hubs (1) with the hexagon shaft pointing to the wheel. Before you do this, attach the flange to the drive wheels using the long hexagonal screws (2) [delivered complete with the wheel weight].

Attach these in pairs and diagonally to the wheel flange (1) from the inside.

- Attach 2 wheel screws (4) diagonally into the free threaded holes on the wheel flange. Attach them from the inside.
- Use 2 long headed screws (7) and washers (6) to screw wheel weights (5) diagonally onto hexagonal screws (2) fitted from within.

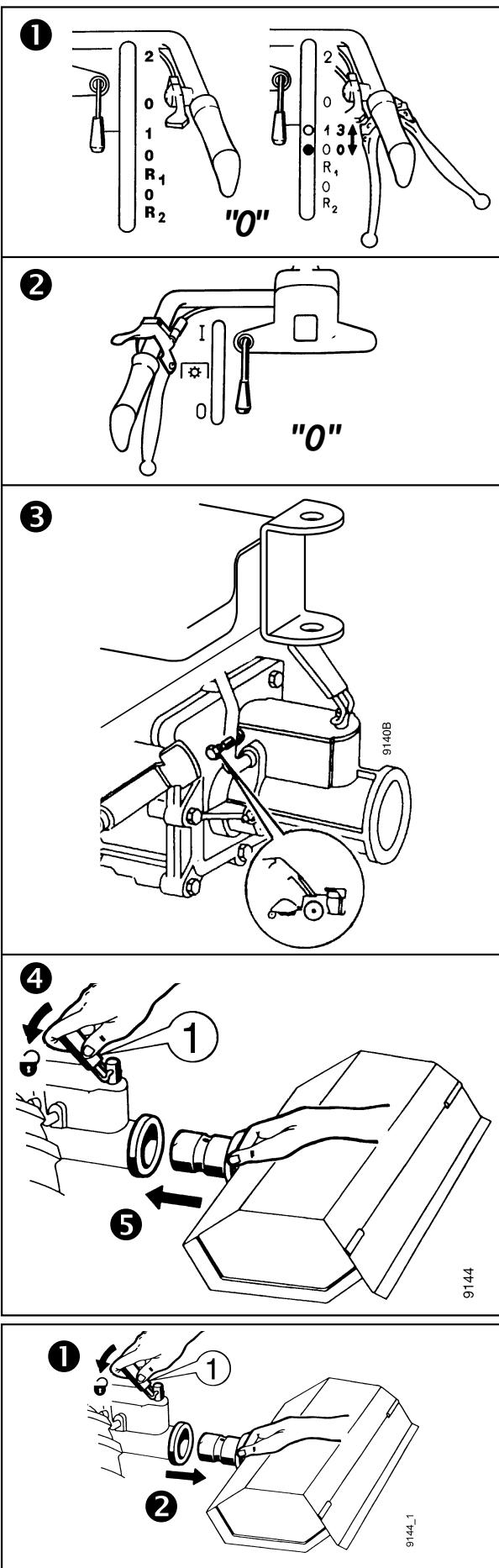
Tighten wheel screws and weight fastening nuts at a torque of **50 Nm**.



##### Version 3F2R wheel flange with double end studs:

- For each wheel, remove 2 wheel nuts and washers diagonally.
- Diagonally mount wheel weights onto double end studs (2) using 2 long headed screws (7) and washers (6).

Tighten wheel screws and weight fastening nuts at a torque of **50 Nm**.



## Coupling and Decoupling Implements

### Rear Attachments

**!** *Mount and remove attachments only with engine switched off!*

#### Coupling attachments

- Remove plastic cap from attachment coupling pin.
- Ensure that coupling surfaces on two-wheel tractor and attachment are clean and greased. Clean and grease, if necessary.

**3**

1 Set gearshift to "0".

2 For PTO driven attachments, set PTO shifter (B/7 and (C/7) on two-wheel tractor to position "0".

3 For mounting hoeing and tilling attachment:

– Push reversing lock bolt out.

4 Press locking lever down and hold.

5 Insert attachment up to stop shoulder and release locking lever.

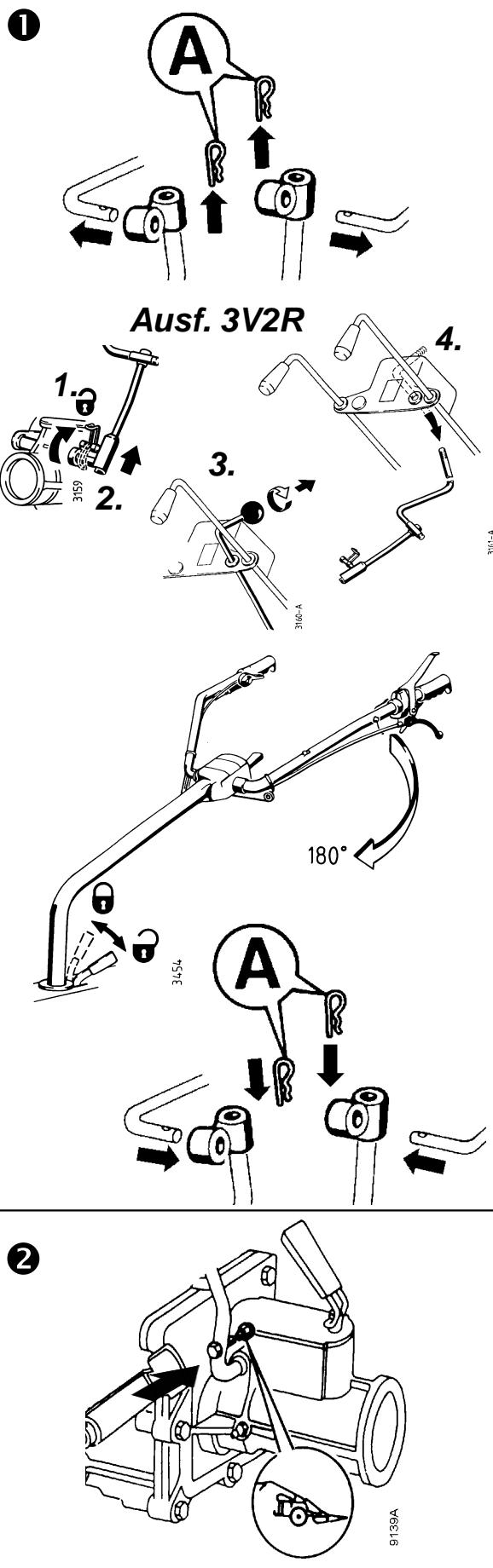
The bolt now locks into place automatically. If not, twist attachment slightly to the left or right.

#### Decoupling attachments

1 Press locking lever down and hold.

2 Decouple attachment.

- Fit protective cap on attachment coupling pin.



#### Front Attachments

For using the two-wheel tractor with front attachments (e.g. mowing, snow clearing, etc.) swivel steering handle anti-clockwise 180°.

**⚠ Only swivel steering handle when the engine is switched off!**

**1** Swivel steering → **24-25**

**2** Push in reversing lock bolt.

**i** Gear shifter is now on the left and PTO speed shifter on the right side of the handlebar. Changing PTO speed is now vice versa.

→ **31**

For version 3F2R, single-wheel braking is now laterally reversed.

→ **31 S**

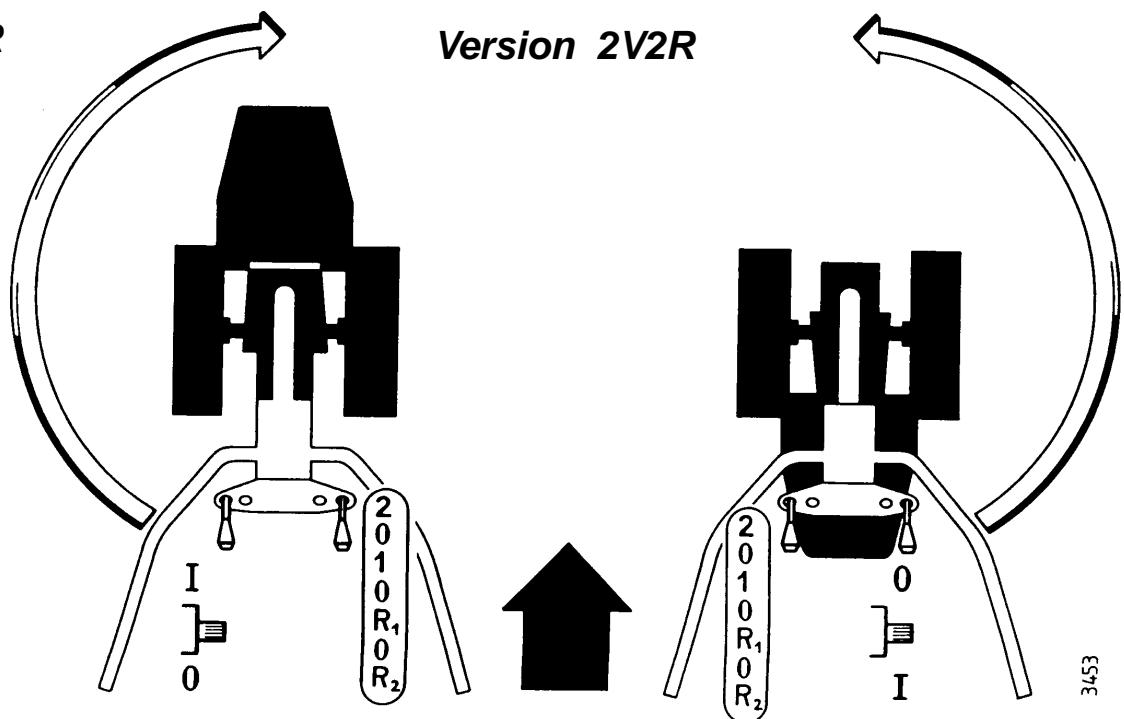
**i** Each time the steering handle is swivelled 180° for front attachment, the wheels should also change sides for the tread profile to match the new travel direction. For this purpose, remove wheels and mount right wheel on left side and left wheel on right side.

#### Swivel steering handle back to original position

- Proceed in same order, but anti-clockwise.
- For version 3F2R, re-attach fast speed shifter.

R

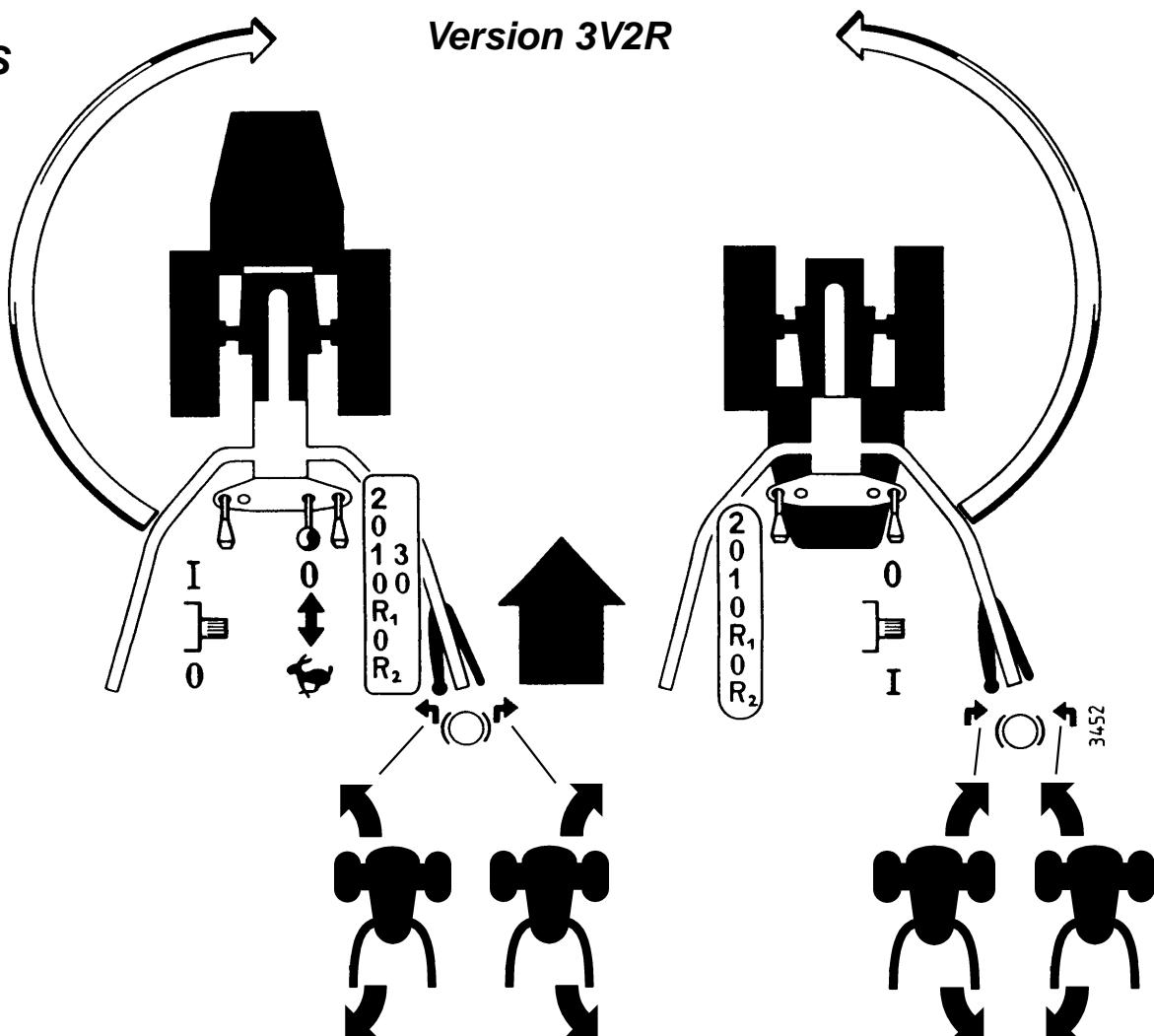
Version 2V2R



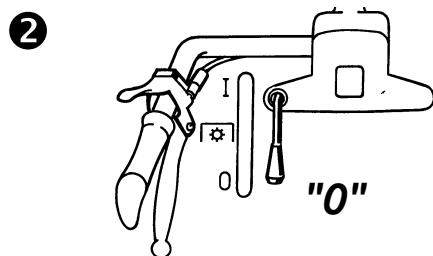
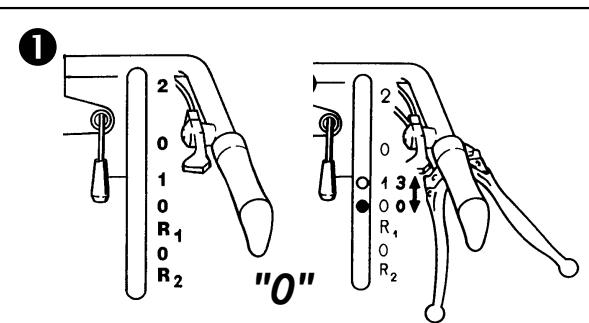
3

S

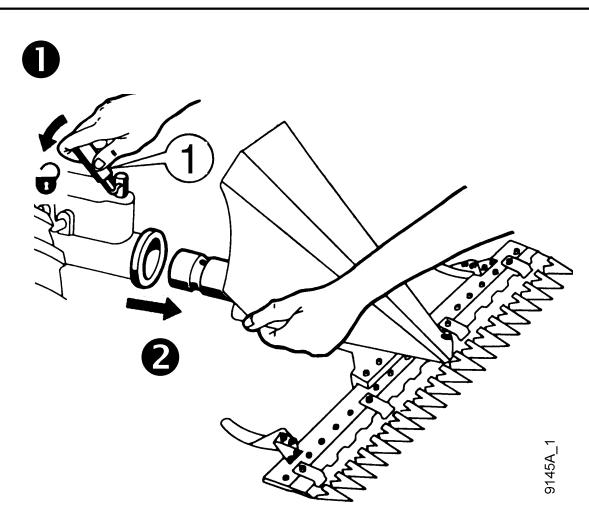
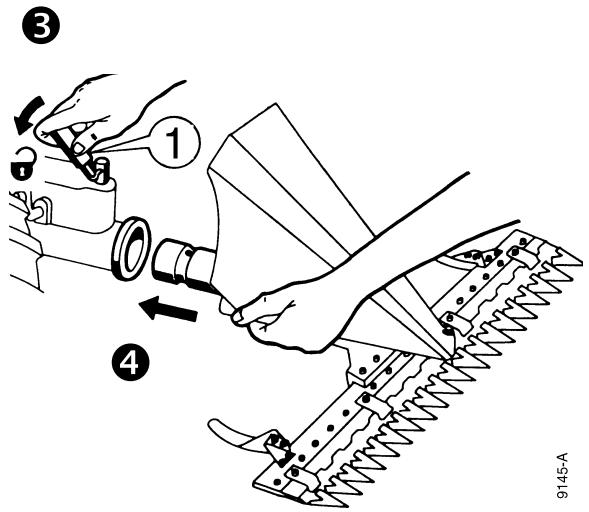
Version 3V2R



3452



**3**



#### Coupling Front Attachments

- Remove plastic cap from coupling pin on attachment.
- Ensure that coupling surfaces on two-wheel tractor and attachment are clean and greased. Clean and grease, if necessary.

**1** Set gearshift to "0".

**2** For PTO driven attachments, set PTO shifter on two-wheel tractor to position "0".

**3** Press locking lever (1) down and hold.

**4** Insert attachment up to stop shoulder and release locking lever (1).

Now the bolt locks into place automatically. If not, twist attachment slightly to the left or right.

#### Decoupling attachments

**1** Press locking lever (1) down and hold.

**2** Decouple attachment.

- Fit protective cap onto attachment coupling pin.

### Commissioning

Please note that durability and operational safety of the engine depend to a large extent on its breaking-in. Always allow a cold engine to warm up for some minutes and never run it at full throttle at the beginning. Make sure the air filter is serviced regularly and to use clean fuel.

Please note: for the first **20** hours of operation (break-in period) do not use the engine at full power.

**Make sure you check and maintain air filters regularly and use clean fuel. Only use branded petrol.**

Only use fresh, clean fuel (not older than 3 months) and approved fuel cans to be purchased in special shops. Rusty sheet metal cans or fuel cans not suited for petrol are not permitted.

For the first commissioning or after longer periods of no operation, fill fuel tank to maximum to avoid starting problems.



**Be careful when dealing with fuel.**



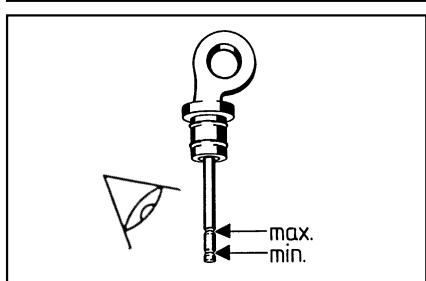
**Fuel is easily inflammable and explosive in certain conditions!**



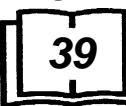
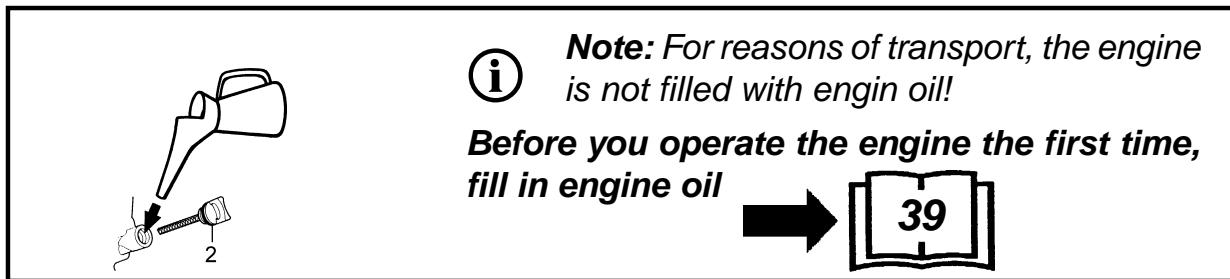
- **Do not refill in closed rooms.**
- **Before each fuel fill, shut off the engine and wait until it has cooled off.**
- **Never refill close to open fire, inflammable sparks or hot engine parts.**
- **Do not smoke during filling!**
- **Do not spill any fuel, use a proper filling device.**

4

Do not cause fuel tank to overflow, but leave a 5 mm margin for the fuel to expand.



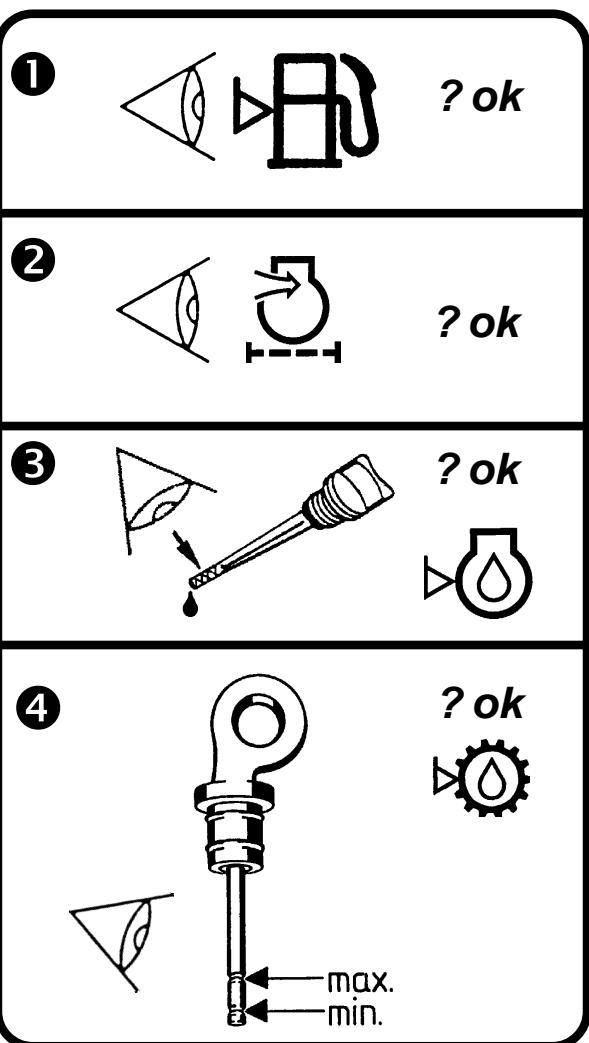
- **Check transmission oil level**



## 4. Commissioning and Operation

agria

Each time You take up operation, i. e.  
before you start the engine:



① Sufficient fuel is filled into the tank (A/1)?

② Air filter (D/3) clean?



③ Check the engine oil level (E/10).



④ Check the transmission oil level of the travelling drive (A/5).



**⚠ Only take power mower into operation with all protective devices mounted and positioned to provide protection!**

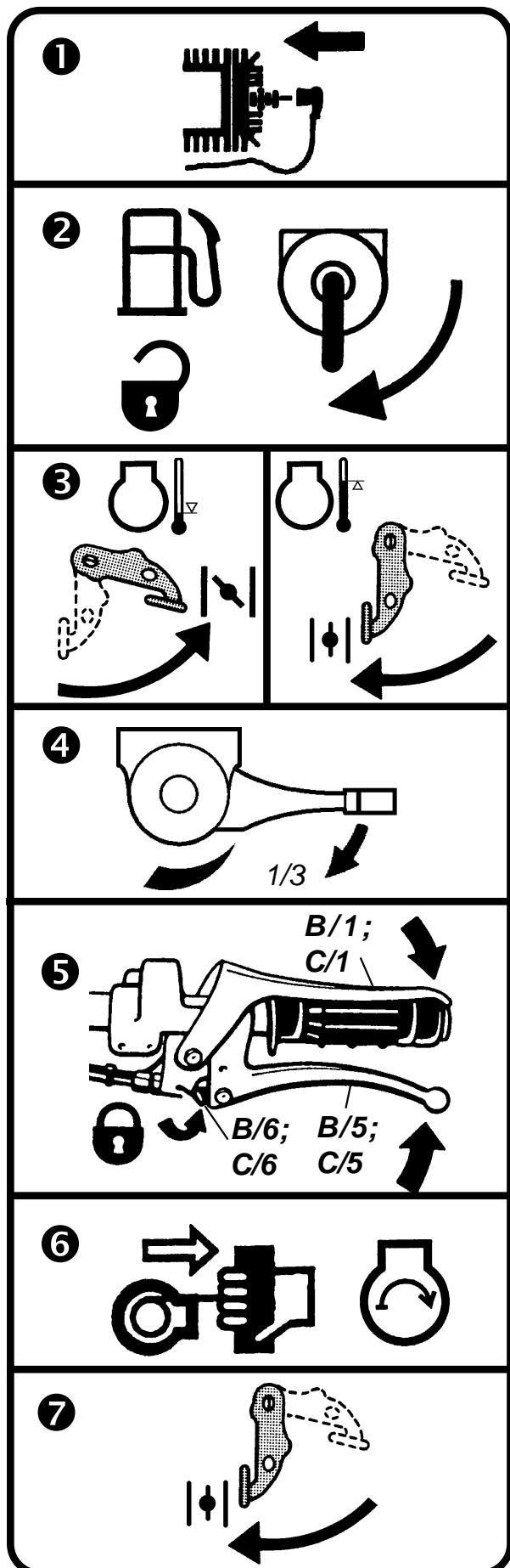
**Careful when starting the engine in closed rooms!**

**Ensure good ventilation and fast escape of exhaust fumes. Exhaust fumes contain carbon monoxide which acts toxic when inhaled.**

**Do not touch the hot engine – danger of burns!**



**Do not touch or remove the ignition line and spark plug connector while the engine is running.**



### Starting Petrol Engine

**1** Position the spark plug connector (E/13).

**2** Open fuel tap (E/11).

**3** **Cold engine:** Turn CHOKE lever (D/4) to position "CHOKE".

**Warm engine:** Leave CHOKE in operating position or turn half way.

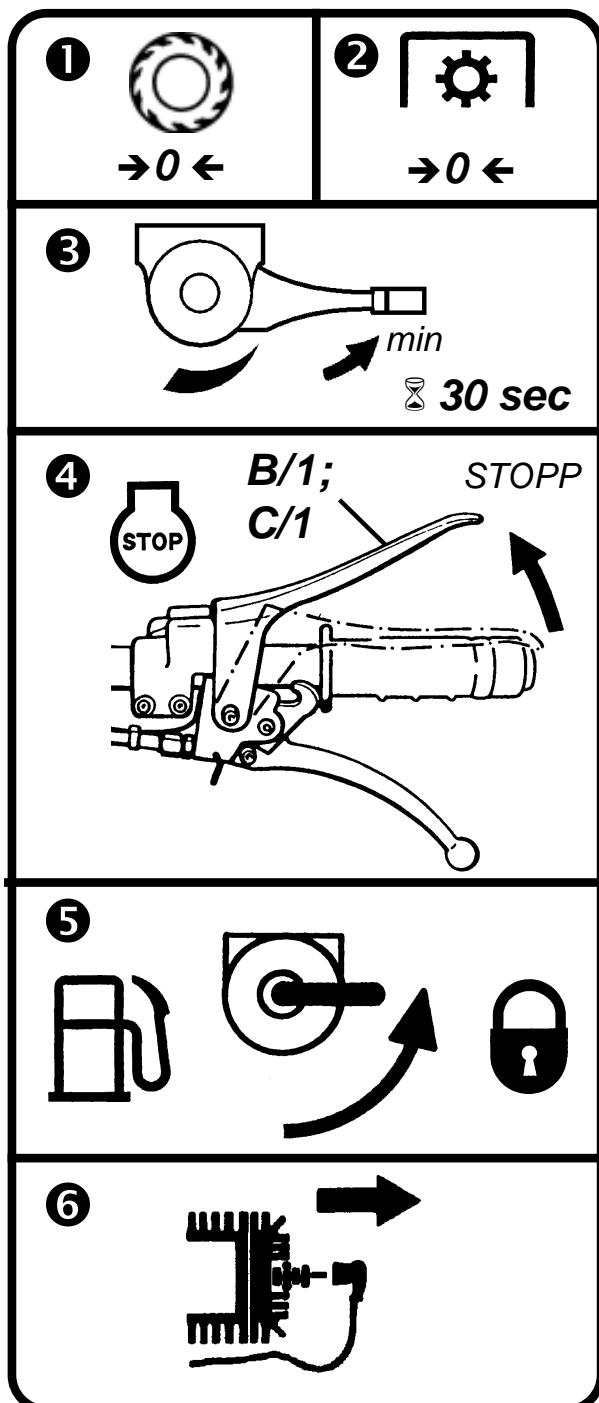
**4**

**4** Set speed control lever (B/4 or C/4) to approx. 1/3 throttle.

**5** Press safety circuit lever (B/1 or C/1) and hand clutch lever (B/5 or C/5) in start position and lock pawl (B/6 or C/6).

**6** Pull the starter rope on the handle (E/4) until the starter clutch engages. Then pull **hard and fast** to pull the rope all the way out. After the start, let the rope glide back. Do not let it snap back.

**7** As soon as the engine has warmed up, move the CHOKE back to the operating position (if it was operated).



4

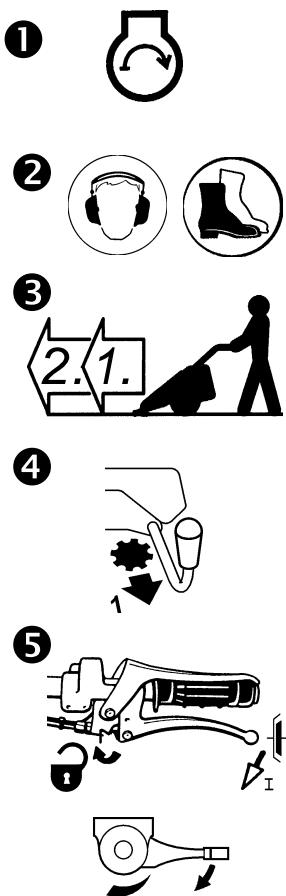
### Switching off Petrol Engine

- ① Set drive-gearshift to “0”.
- ② Set mowing gearshift to “0”.
- ③ Set speed control lever to *idle position* and let engine run *idle* for approx. half a minute.
- ④ Release safety lever (B/1 and C/1).
- ⑤ Close fuel tap.
- ⑥ Secure two-wheel tractor against unauthorized use  
⚠ - disconnect spark-plug connector.

**i** *Note:* The safety lever (B/1 and C/1) also serves as **emergency off-switch**. If necessary, release lever to turn engine off.

**i** For longer periods of no operation, do not switch off engine with engine-off-switch, but close fuel tap and let engine run until it slowly comes to a complete stop due to lack of petrol. This ensures the carburetor to be empty and no resin residue to deposit.

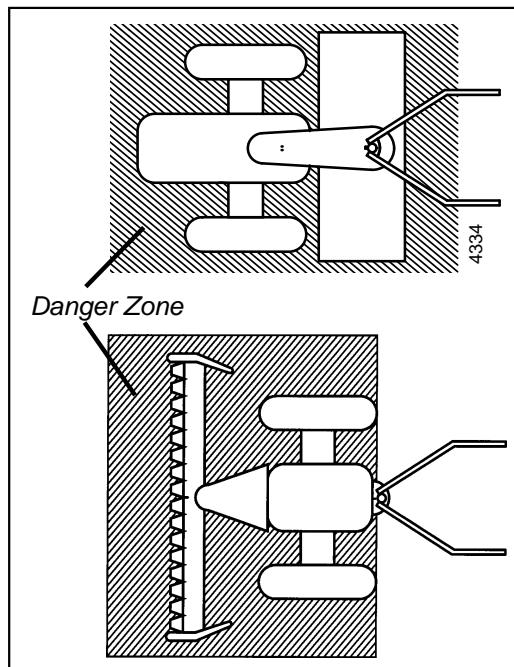
### Operations



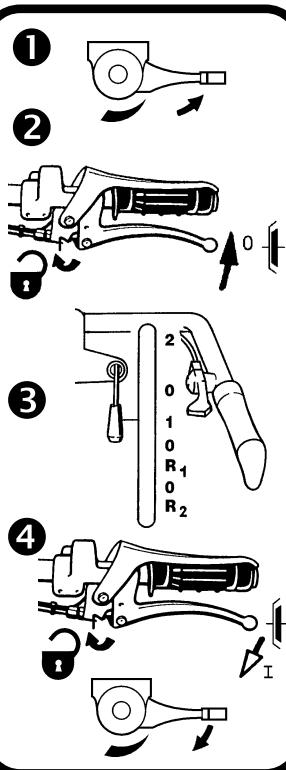
- ① Start the engine  
→ Commissioning
- ② Check safety circuit function  
- Only operate the machine if safety circuit works!
- ③ Wear individual protective ear plugs and solid shoes.
- ④ Engage proper gear 1 or 2.
- ⑤ Move PTO lever.
- ⑥ Pull hand clutch lever slightly while pressing the throttle.

### Danger Zone

⚠ **Keep out of the machine's danger zone during starts and operation.**



For direction change from forward to reverse, proceed as follows:

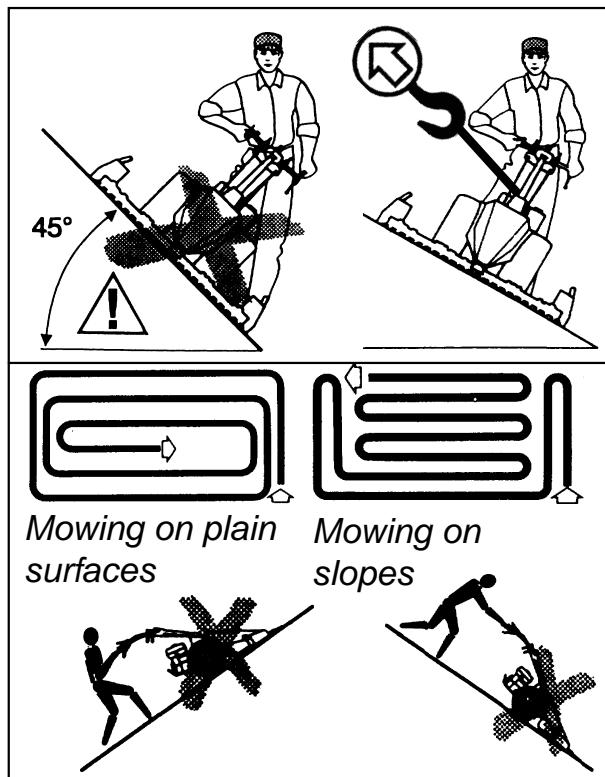


- ① Set speed control lever to idle position.
- ② Pull hand clutch lever and hold.
- ③ Set shifter to "R1 oder R2".
- ④ Slowly release hand clutch lever while pressing the throttle.

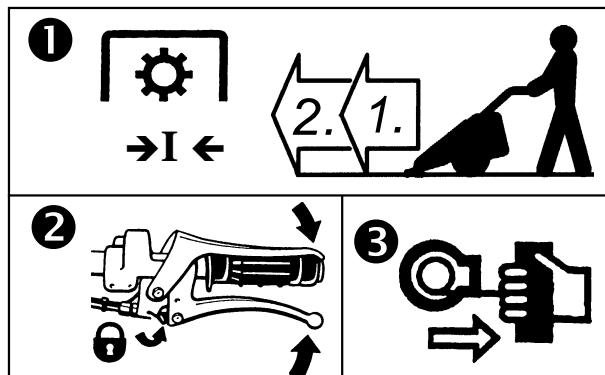
ⓘ After mowing or in case of clogging:

- ① Disengage wheel-drive. The mower comes to a stop but not the knives, thus freeing the cutter bar from grass.
- ② Pull hand clutch lever and lock pawl.
- ③ Disengage mowing drive.
- ④ Shut engine off.
- ⑤ Re-fit knife guard.

⚠ If cleaning becomes necessary during operation, the engine must be shut off and the spark plug connector disconnected for safety reasons.



4



### Mowing on slopes

**⚠ To prevent the mower from sliding on slopes, make sure it is secured by another person using a bar or a cord. This person must be located at a higher position than the vehicle and at a safe distance from the attachment at work.**

**For operation on banks, always turn machine towards the slope!**

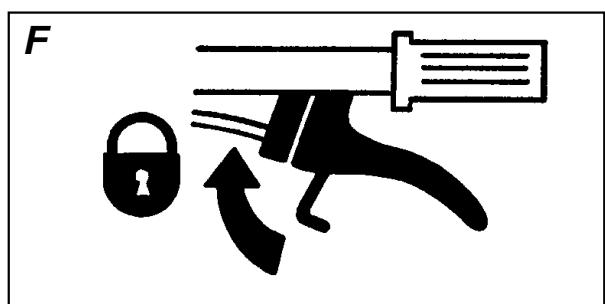
### Starting the engine on slopes

- 1 Keep the PTO shaft and the travelling drive in engaged mode; braking effect.
- 2 Move the hand clutch lever and emergency-off-switch into "Start" position.
- 3 Start the engine.

### Driving with Mounted Trailer

When driving the two-wheel tractor on public roads (whether with or without trailer), adhere to national traffic rules, e.g. regarding reflectors.

*It is not allowed to operate the two-wheel tractor with trailer on public roads.*



**⚠ When driving with trailer mounted, do not activate the single-brakes. Hand levers for single-wheel brakes must be secured with pawls (fig. F) to prevent them from being activated.**

## 5. Maintenance

agria

- (i)** Apart from observing all operating instructions , it is also important to pay attention to the following maintenance instructions.

Please note:

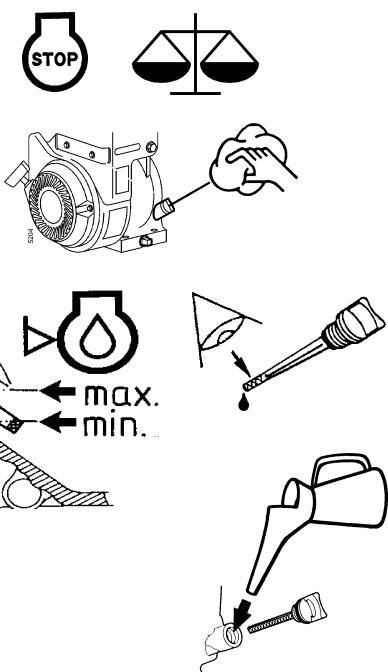
- !** Only do all maintenance work with the engine switched off and spark plug connector disconnected!



When working on mowing knives, wear safety gloves.!

### Engine

**⌚ A; 8 h**



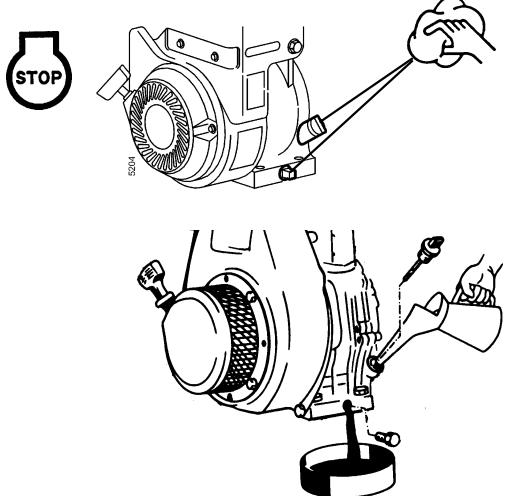
#### Check Oil Level

each time you take up operation and after every 8 operating hours,

- only with engine switched off and in horizontal position.
- Clean oil plug and surrounding parts.
- Remove oil plug, clean dipstick with a clean cloth and dip back into oil tank und (do not screw in), take out dipstick and read oil level.
- In case oil level is below lower mark "min", refill engine oil (refer to "Specifications") until oil level reaches rim of oil filler neck "max".

5

**⌚ 25 h (50 h)**



#### Changing Engine Oil

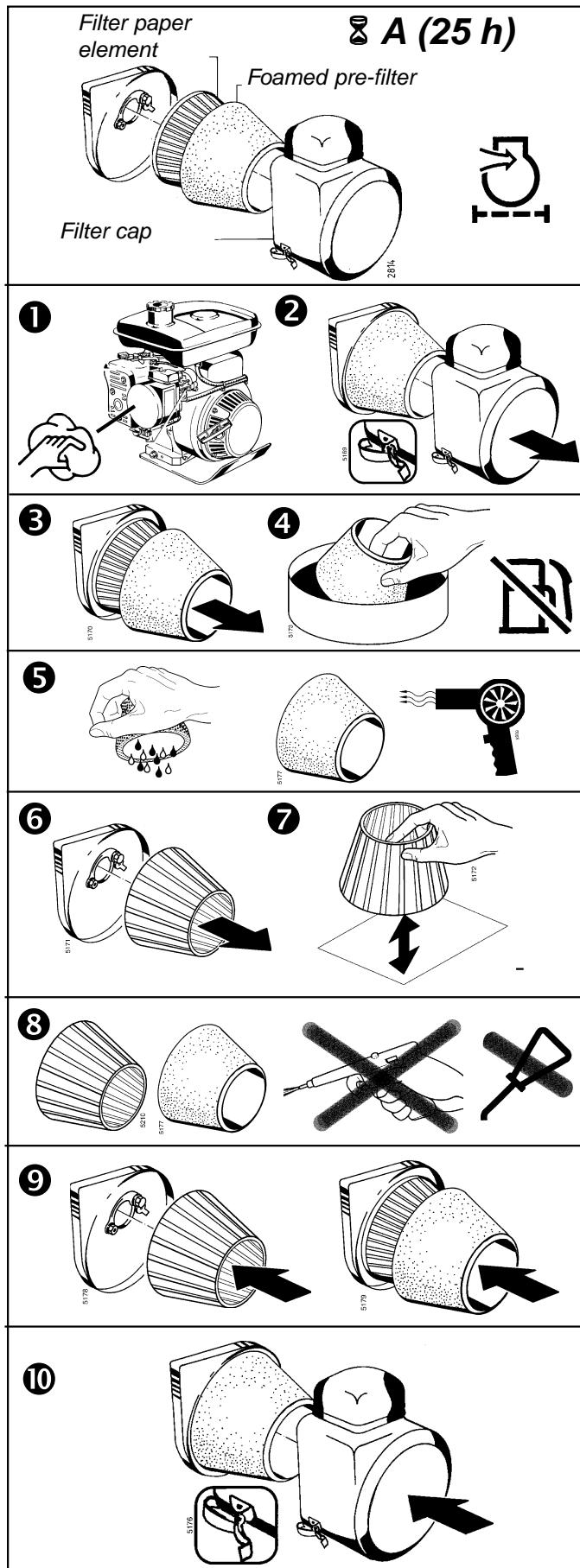
The first oil change is after 25 operating hours, Following oil changes are after every 50 operating hours. Change oil while engine is still warm, but not hot – danger of burns!

- Clean filling- and drain plug and surrounding parts.
  - Change the oil and dispose of properly.
- (i)** Check sealing washer for good condition and exchange, if necessary!

- For engine oil quality refer to "Specifications".

## 5. Maintenance

**agria**

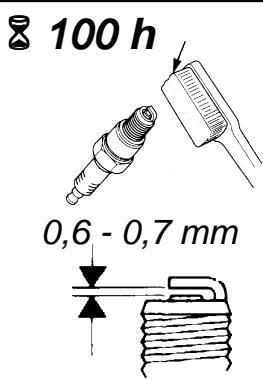


### Air Filter

When You take up operation check the air filter (D/3) on dirt, clean it if necessary.

Clean the air filter after a maximum of **25 operating hours** or at **3-month intervals**, after some hours in very dusty conditions:

- 1 Clean the air filter and surrounding parts.
  - 2 Take off the filter cap.
  - 3 Carefully remove the foamed preliminary filter.
  - 4 Wash the foamed preliminary filter in warm lye (do not use petrol).
  - 5 Squeeze the foamed preliminary filter like a sponge and dry it.
  - 6 Remove the filter element.
  - 7 Tap the filter element against a smooth surface.
  - 8 Do not clean the foamed preliminary filter and the filter element using compressed air and do not soak it in oil!
  - 9 Reinstall the filter element and the foamed preliminary filter.
  - 10 Reposition the filter cap.
- i** Replace immediately damaged filter elements, **at least once a year.**

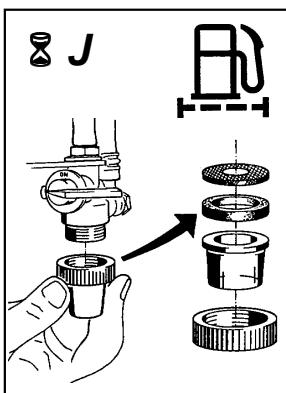


### Cleaning the Spark Plug and Re-adjusting the Electrode Gap

After every 100 operating hours or ignition problems:

- Clean the electrodes on the spark plug from dust and dirt using a wire brush.
- Check spark plug gap and, if necessary, re-adjust it.

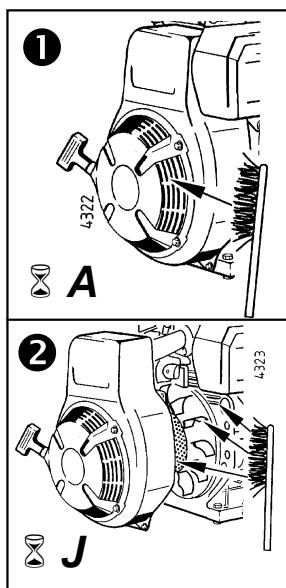
Exchange the spark plug at approx. **200-hour intervals**.



### Cleaning the Fuel Strainer

Check the strainer on the fuel tap (E/11) at least **once a year** for water and other impurities.

- Close the fuel tap.
- Remove the fuel strainer and remove the impurities, replace if damaged.
- Rinse the strainer container in fuel.
- Then screw it back on correctly, to avoid fuel leakage.



### Fuel Hoses

Exchange after every **2 years**, Exchange leaking fuel hoses immediately.

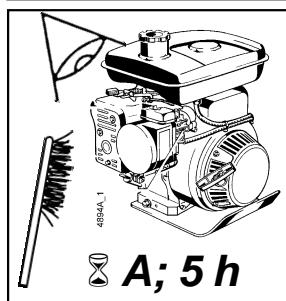
**5**

### Cleaning the Cooling System

Clogging of dirt and dust may occur to the cooling system. This may heat up and damage the engine.

- Regularly check the cooling-air screen (E/6) and clean from dust and sucked-in plant trash.
- Remove the fan case **at least once a year**, preferably before the season starts and clean the cooling fins on cylinder, cylinder head, guide plates and cooling-air screen, both serving for good air circulation.

→**agria - Service**←



### Exhaust

Regularly clean surrounding parts of muffler (D/5) Free from grass, dirt and inflammable deposits.



**Danger of fire!**

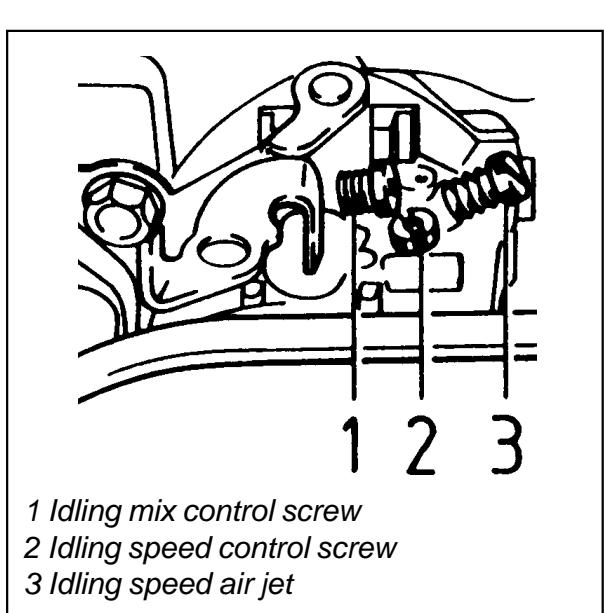
## 5. Maintenance

agria

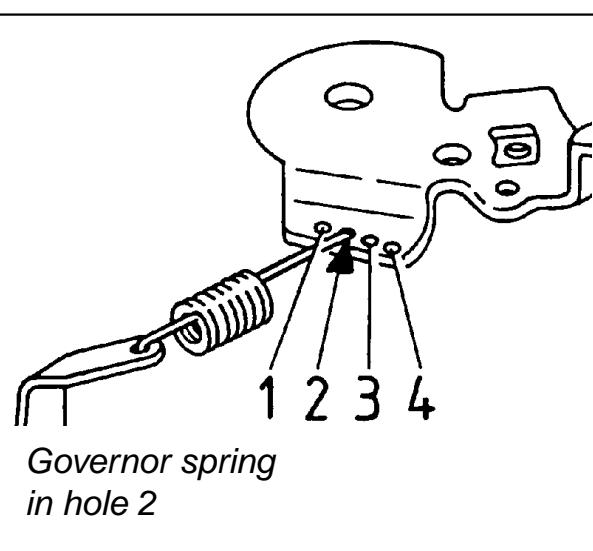
### Cleaning the Cylinder Head

After every **400** hours of operation take off cylinder head and remove carbon deposits on the cylinder head, piston crown and valves with a steel brush. Afterwards, clean with soft brush. Exchange the gasket and reassemble it to the cylinder head. Tighten cylinder head screws in turn at **25 Nm**.

→agria - Service←



5



### Readjusting the Valve Lash

After every **400** hours of operation, readjust the valve lash. Intake and outlet valve are at 0.08–0.11 mm when the engine is cold.

→agria - Service←

### Cleaning the carburetor

Clean the carburetor every **400** operation hours and then readjust the idle speed. →agria - Service←

### Idle speed adjusting

Always ensure that idling-speed is adjusted correctly. With the speed control lever set to idle, the engine is supposed to run smoothly and without run-out at low engine speed.

At low speeds, the engine is supposed to continue running smoothly when the speed control lever is at a stop in idling. Adjust the engine speed while the engine is still warm from operation. For this purpose, re-adjust the limiter screw (2) and the mix control screw (1) for idling speed. Then turn the attachment or adjusting screw to adjust the throttle cable for no play. (For idling speeds refer to "Specifications").

Adjustment →agria - Service←

### Governor

For proper function of the engine speed governor and to adjust the upper idling speed, the governor spring has to be in the appropriate hole, see fig.

**Any changes to the position of the spring increases the risk of accident and will render the warranty null and void!**

Keep governor spring, lever and linkages free from dirt and plant trash at all times.

### Machine

#### Gearbox

Check **transmission oil level** before you take up operation and after every **50** operating hours (oil dipstick (A/15)).

The machine parked in horizontal position, the oil level is between the notches **max.** and **min.**.

**1** Remove oil dipstick, clean with a clean cloth and put it back in.

**2** Remove the dipstick again and read the oil level, refill transmission oil, if necessary.

**Change transmission oil** after the first **50** operating hours and after every **300** operating hours while the engine is still warm.

**1** Clean the oil filler plug (A/15) and the drain plug (A/19) as well as the surrounding parts.

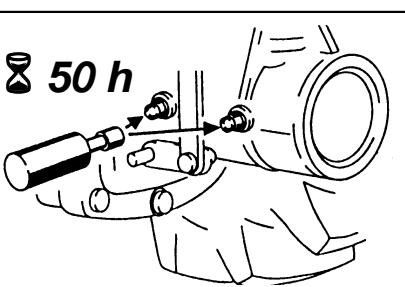
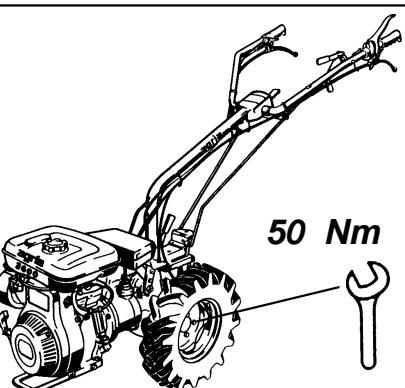
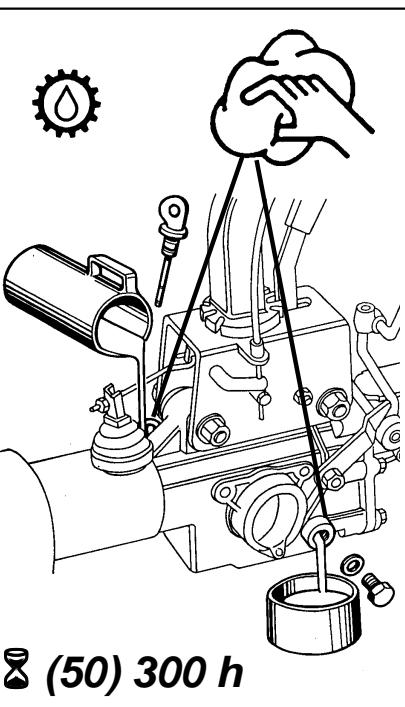
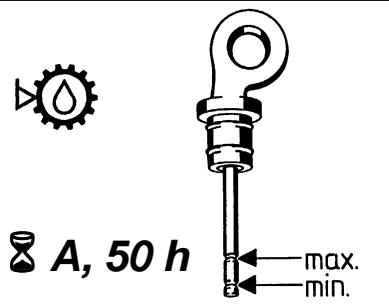
**2** Change oil, collect the old oil in a proper container and dispose of properly.

**Check and exchange o-rings, if necessary.**

**i Tighten the drain plug!**

For filling quantity and oil quality refer to "Specifications".

**5**



#### Drive wheels

- When commissioning the machine and each time you change wheels, check and tighten wheel bolts and nuts after the first 2 operating hours with **50 Nm** and after **25** operating hours.

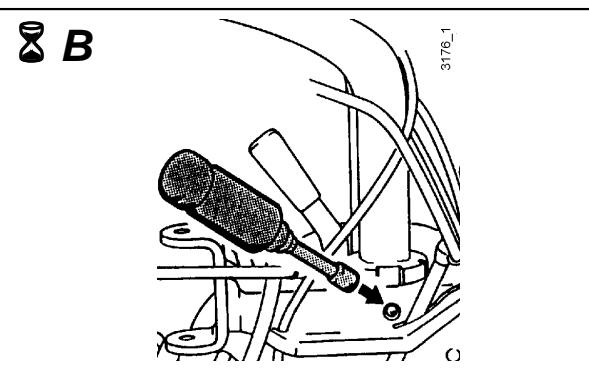


- Check the tyre air pressure regularly. For smooth driving, make sure that there is the same pressure in both tyres.

#### Coupling Attachments

After every **50** operating hours and each time you clean the machine, lubricate the nipples with Bio-lubricating grease.

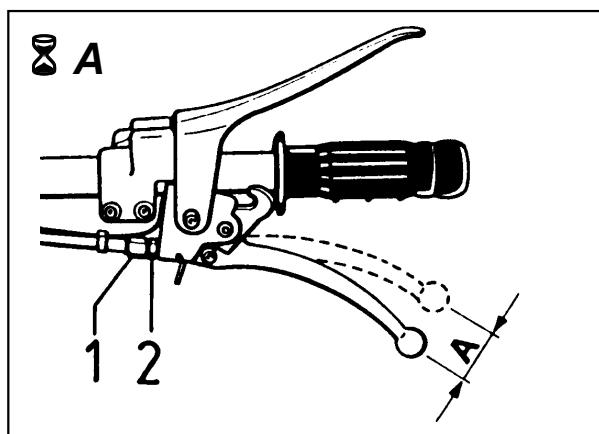
Additionally, grease the PTO each time before you couple an attachment.



### Steering handle

**Once per year** or after each cleaning with air-compressed water jets, lubricate the lubricating nipple (1) with Bio-lubricating grease.

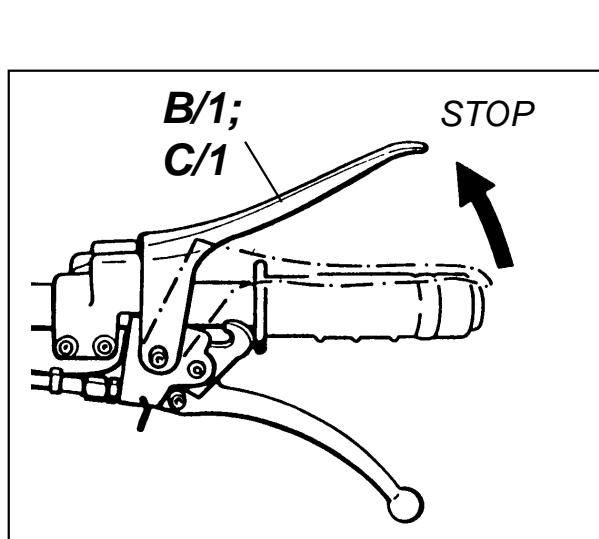
Apply grease generously to leave a grease neck around bearings to prevent water and dirt from penetrating.



### Adjustments on Hand Levers

Check clutch play or clutch adjustment "A" each time you operate the machine. If necessary, re-adjust (especially after commissioning the machine, during break-in period, and after exchanging clutch linings).

- Remove locking nut (2).
- Adjust the adjustment screw to a play of  $A = 5 - 6 \text{ mm}$ .
- Re-tighten locking nut (2).



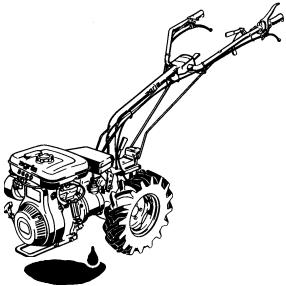
### Safety circuit

Check safety circuit for proper function each time you take up operation and each time you do maintenance work on the machine.

- When you release lever (B/2) and engaged clutch the engine must automatically come to a stop.
- Check electric conductors and connections for good condition, exchange, if necessary.

→agria - Service←

1



2



3



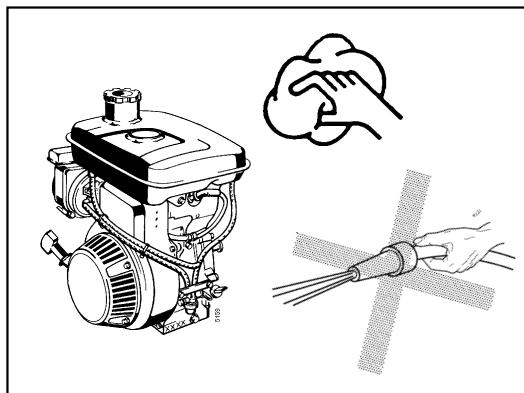
### General Maintenance

1 Watch out for fuel and oil leakage every time You take up operation, repair if necessary.

2 Regularly check bolts and nuts for tight fit, retighten, if necessary.

3 At least **once a year** and after cleaning:

Lubricate all gliding and moving parts with Bio-lubricating grease or Bio-lubricating oil (e.g. speed hand lever, handle bearing etc.).



### Cleaning

#### Engine

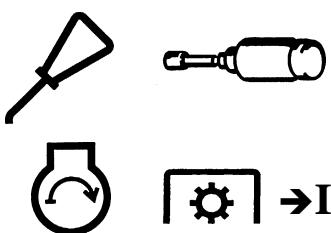
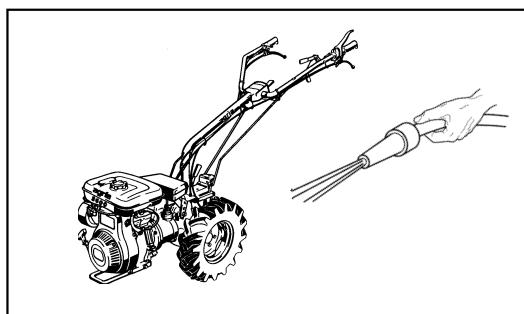
Clean engine only with a cloth. Avoid spraying with water jets, as water might penetrate into ignition and fuel system and cause malfunctions.

5

#### Machine

After each cleaning (spraying with water, especially with air-compressed water jets) lubricate all lubrication points, oil and let two-wheel tractor run for a short time to press water out.

Apply grease generously to leave a grease ring around bearings to prevent water, plant sap, and dirt from penetrating.



### Storage

**For longer periods of no operation:**

**a) Clean thoroughly**

Repair paint coat

**b) Spray all shining parts, in particular cutter bar, with Bio-slushing oil.**

**c) Engine preservation**

- Drain the fuel completely from the system **or** fill the fuel tank, add fuel stabilizer (agria No. 799 09) to the fuel tank

**- Observe instructions**

Operate the engine for approx. 1 minute.

- Change the engine oil.
- Fill a teaspoon of engine oil (approx. 0.03l) into the spark plug opening. Slowly crank the engine.

- Reinstall the spark plug and set the valves on compression using the recoil starter (Pull the starter rope until you feel resistance), the valves are closed.

- Crank the engine slowly at 2–3 week intervals (spark plug connector is removed!) and set the valves on compression again.

**5**

**d) Drive-wheels**

Support drive-wheels in such a way that tyres have no ground contact. Pneumatic tyres are quickly destroyed, if left standing under load and uninflated.

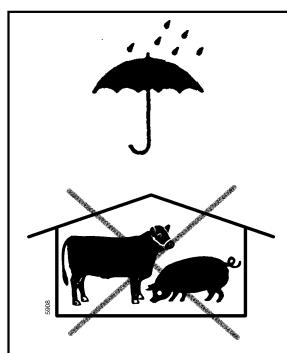
**e) Clutch**

Always park mower with hand clutch lever pulled (pawl locked in place). Otherwise, clutch problems may result due to corrosion.

**f) Storing the machine**

To avoid severe corrosion:

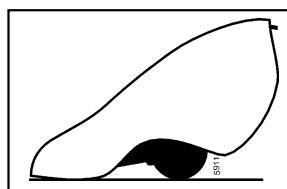
- to preserve the machine from atmospheric influences



Do not park the machine in:

- humid rooms
- in rooms where fertilizer is stored
- in stables or adjacent rooms.

**g) Protect machine**



with cloth or a similar cover.

## Lubricants and Anti-Corrosive Agents

Use the specified lubricants for engine and gearbox (see "Specifications").

We recommend using **bio-lubricating oil** or **bio-lubricating grease** for "open" lubricating points or nipples (as specified in the operating instructions).

We recommend using bio-slushing oil for preservation of machines and implements (do not apply on painted external covers). Oil can be brushed or sprayed on.

Anti-corrosive agents are environmentally friendly and degrade fast.

Using ecologically safe bio-lubricants and bio-anti-corrosives, you contribute to environmental protection and to the wellbeing of humans, animals and plants.

## Fuel

This engine runs smoothly on commercial **unleaded regular and supergrade petrol** as well as on **leaded supergrade petrol**.

**Do not add oil to petrol.**

If, for environmental reasons, you use unleaded petrol, make sure the fuel is drained completely when shutting down the engine for more than 30 days. This is to prevent resin residue from depositing in the carburetor, fuel filter, and tank. Or add a fuel stabilizer.

For further instructions refer to "Engine Preservation".

## Maintenance and Repair

The trained mechanics of your agria workshop carry out expert maintenance and repair.

You should only carry out major maintenance work and repairs on your own, if you have the proper tools and knowledge of machines and internal combustion engines.

Do not hammer against the flywheel with a hard object or metal tools as it might crack and shatter in operation causing injuries and damage. Only use suitable tools for pulling the flywheel.

## 6. Troubleshooting

**agria**



**Observe safety instructions!** Have all serious malfunctions on the machine or engine repaired by your agria workshop. They have the proper tools. Improper repairs can only add to the damage.

Problem	Possible cause	Remedy	Page
Petrol engine does not start	<ul style="list-style-type: none"> <li>- Spark plug connector not connected</li> <li>- Choke is not pulled</li> <li>- Safety circuit is not set to start position</li> <li>- Fuel tank empty or poor fuel</li> <li>- Fuel line clogged</li> <li>- Defective spark plug</li> <li>- Engine too much fuel ("flooded engine")</li> <li>- Engine-off-line defective</li> <li>- Inleaked air due to loose carburetor and suction line</li> </ul>	<ul style="list-style-type: none"> <li>Connect spark plug connector</li> <li>Set Choke-lever to right position</li> <li>Set safety circuit to start position</li> <li>Fill fresh fuel</li> <li>Clean fuel line</li> <li>Clean, adjust or exchange spark plug</li> <li>Dry and clean spark plug and start at full throttle</li> <li>Check line and connections</li> <li>Tighten fastening screws</li> </ul>	35 20 41 41 41 41 44
Misfirings in petrol engine	<ul style="list-style-type: none"> <li>- Engine running in CHOKE range</li> <li>- Ignition cable not fixed</li> <li>- Clogged fuel line or poor fuel</li> <li>- Vent opening in fuel tank cap clogged</li> <li>- Water or dirt in fuel system</li> <li>- Air filter clogged</li> <li>- Carburetor misadjusted</li> </ul>	<ul style="list-style-type: none"> <li>Set CHOKE-lever to operating position</li> <li>Fix spark plug connector on the spark plug, Fix ignition cable retaining device</li> <li>Clean fuel line, fill fresh fuel</li> <li>Exchange fuel tank cap</li> <li>Drain fuel and fill fresh fuel</li> <li>Clean air filter or exchange</li> <li>Re-adjust carburetor</li> </ul>	35 * 40 42
Excessive temperature in petrol engine	<ul style="list-style-type: none"> <li>- Low engine oil level</li> <li>- Impaired cooling</li> <li>- Air filter clogged</li> <li>- Carburetor misadjusted</li> </ul>	<ul style="list-style-type: none"> <li>Refill oil immediately</li> <li>Clean cooling fan grid, clean internal cooling ribs</li> <li>Clean air filter</li> <li>Re-adjust carburetor</li> </ul>	39 41 41 42
Misfirings in petrol engine at high speeds	<ul style="list-style-type: none"> <li>- Short firing intervals</li> <li>- Incorrect idle mix</li> </ul>	<ul style="list-style-type: none"> <li>Adjust spark plug</li> <li>Adjust carburetor</li> </ul>	41 * 42
Petrol engine frequently stalls in idle	<ul style="list-style-type: none"> <li>- Firing interval too long, defective spark plug</li> <li>- Carburetor misadjusted</li> <li>- Air filter clogged</li> </ul>	<ul style="list-style-type: none"> <li>Adjust or replace spark plug</li> <li>Re-adjust carburetor</li> <li>Clean air filter</li> </ul>	41 * 42 40

## 6. Troubleshooting

**agria**

Problem	Possible cause	Remedy	Page
Petrol Engine does not run smoothly	- Speed control linkages clogged or jammed	Clean speed control linkages	42
Petrol Engine does not stop when set to stop	- Defective engine-stop-line, earth missing	Check line and connection, check earth contact	44
Petrol Engine output too low	- Air filter clogged - Loose cylinder head or damaged sealing - poor compression	Clean air filter Tighten cylinder head, exchange sealing Have engine checked	40 * 42 *
Clutch does not decouple	- Hand clutch lever misadjusted	Adjust clutch free play	44
Clutch slips	- Hand clutch lever misadjusted - Worn out clutch	Adjust clutch free play Exchange clutch disc	44 *
Excessive vibration	- Loosened screws	Tighten fastening screws	45

\* = For this purpose contact your agria workshop.

agria Order No.

799 09	Fuel stabilizer	Pouch	5 g
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## Varnishes

181 03	Spray varnish birch-green	spray tin	400ml
712 98	Spray varnish red, RAL 2002	spray tin	400ml
509 68	Spray varnish black	spray tin	400ml

## Emergency Tyre Repair:

713 13	Tyre sealing gel Terra-SBottle	1 l.
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## Wear Parts

749 00	Air filter set (paper element and preliminary filter)
671 87	Spark plug Bosch WR7 AC
009 05	Sealing washer 14 x 20 x 1.5 (engine oil drain plug)
684 16	Sealing washer (engine oil dip stick)
009 25	Sealing washer 14 x 18 x 1.5 (drain plug of gearbox housing) <sup>1</sup>
009 16	Sealing washer 16 x 22 x 1.5 (drain plug of gearbox housing) <sup>1</sup>
692 56	Plastic cap for attachment pin Ø 47 mm

## Lists of Spare Parts

997 075	Two-wheel tractor 3600
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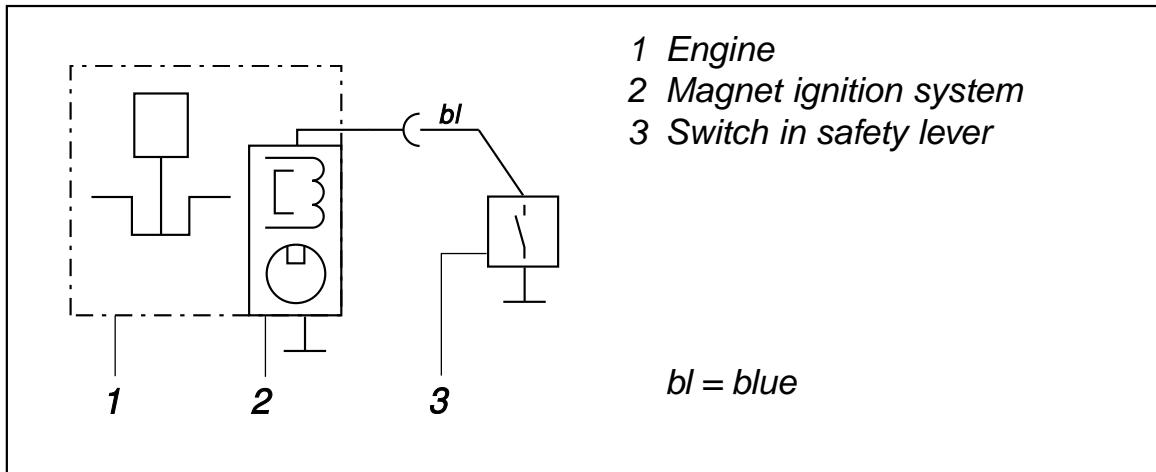
997 077	Robin engines
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)<sup>1</sup> = Depending on version

# Electric Circuit Diagram

## Lubrication Chart

**agria**

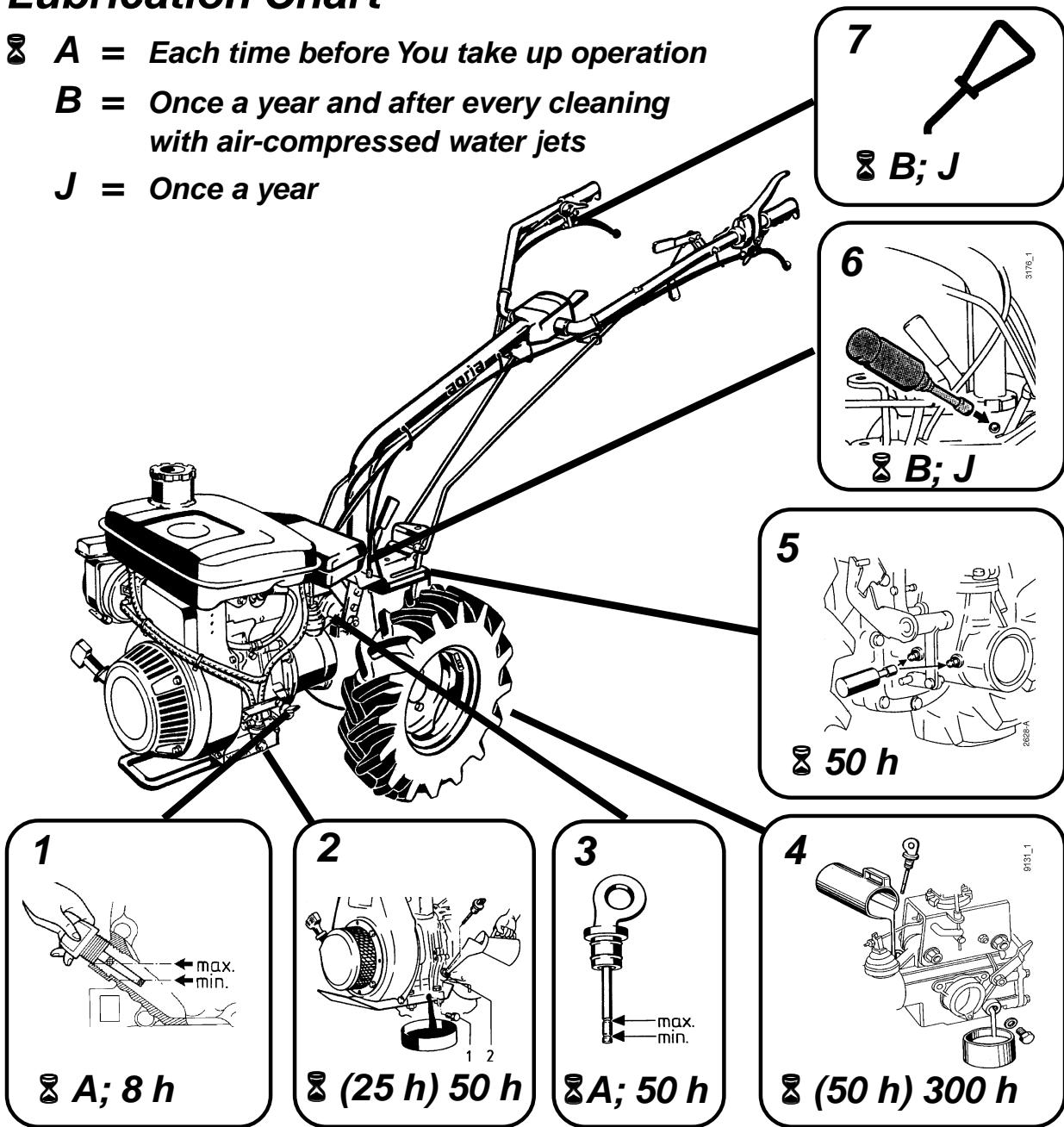


## Lubrication Chart

**A** = Each time before You take up operation

**B** = Once a year and after every cleaning  
with air-compressed water jets

**J** = Once a year



# Inspection and Maintenance Chart

**agria**

	P	A	After operating hours									min. 3 month	min J	B	Page
			2	8	25	50	100	200	300	400					
Check bolts and nuts		K													45
Check air filter		K													40
Check free play of hand lever		K													44
Check safety circuit function		K													44
Clean cooling-air screen		K													41
Check engine oil level, refill, if necessary	1	K	K												39
Check transmission oil level	3	K				K									43
Re-tighten w heel bolts and nuts			K												43
First engine oil change, subsequent oil changes	2				W										39
	2				W										
Clean air filter, foamed preliminary filter					W							W			40
Replace air filter paper element earlier, if required !						W							W		40
Grease the attachment connector	5					K								K	43
Change transmission oil subsequent changes	4					W									43
	4						W								
Clean spark plug, adjust electrode gap							K								41
Replace spark plug								K							41
Clean cylinder head									F						42
Clean carburetor and adjust idle speed									F						42
Adjust valve lash									F						42
Lubricate steering handle	6											K	K		44
General greasing points	7				K							K	K		45
Clean cooling fins, guide plates and cooling-air screen											F				41
Clean fuel filter												W			41
Replace fuel hoses												W*			41

A = Each time before you take up operation

B = After each cleaning

K = Checks and maintenance to be executed by operator

W = Maintenance to be executed by professional workshop

F = Maintenance should be carried out by your AGRIA  
workshop

\* = after 2 years

P = Position lubrication chart

## **4-Stroke-Petrol Engine**

**Robin EH 17 D**

### **Figure D**

- 2 Carburetor
- 3 Air filter
- 4 Choke lever
- 5 Protected exhaust

### **Figure E**

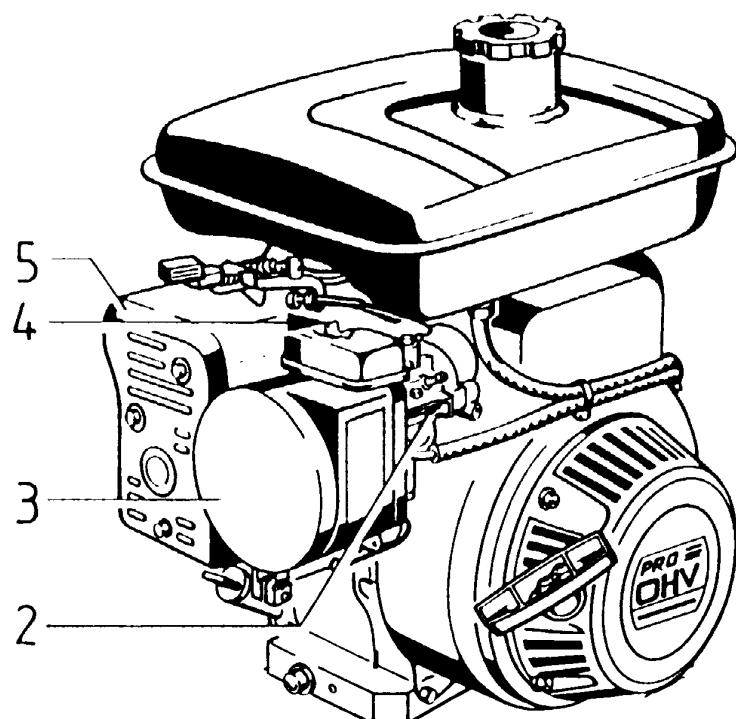
- 1 Fuel tank
- 2 Fuel tank cap
- 4 Starter handle
- 5 Recoil starter
- 6 Cooling-air screen
- 7 Engine protection base
- 8 Engine type designation and no.
- 9 Engine oil drain plug
- 10 Engine oil filler plug with dipstick
- 11 Fuel tap
- 13 Spark plug/spark plug connector

## Designation of Parts

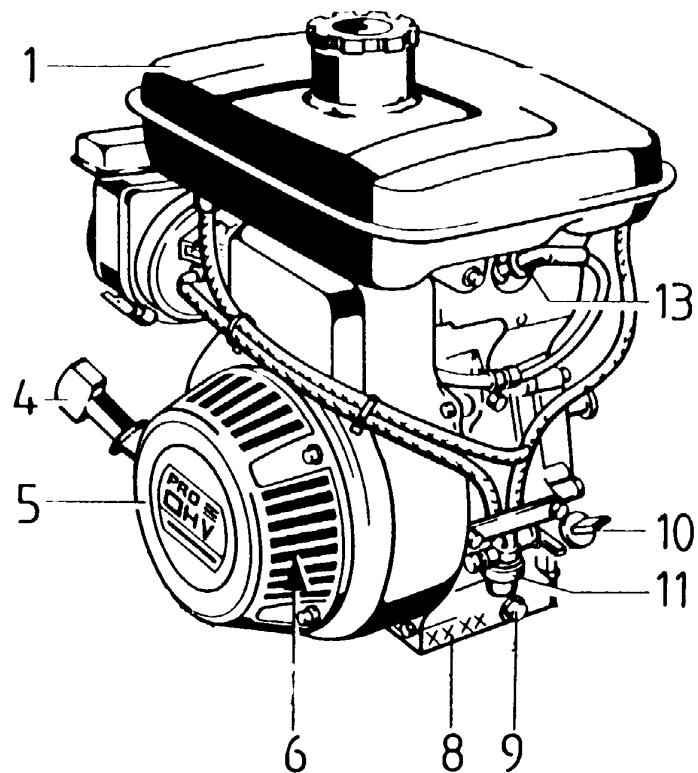
agria

4-Stroke-Petrol Engine,  
Robin EH 17 D

D



E



# Conformity Declaration

agria

## EG-Konformitätserklärung EC Declaration of Conformity

## CE Déclaration de conformité EG conformiteitsverklaring

(D)

Wir

(F)

Nous

(GB)

We

(NL)

Wij

**agria-Werke GmbH  
Bittelbronner Str. 42  
D-74219 Möckmühl/Württ.**

erklären, dass das  
Produkt

déclarons que le produit  
herewith declare that  
the product

verklaaren dat het  
produkt

**Einachstraktor**

**Motoculteur**

**Pedestrian controlled  
tractor**

**Eenassige tractor**

**3600 071, -321**

mit allen einschlägigen  
Bestimmungen der EG-  
Maschinenrichtlinie  
2006/42/EG in  
Übereinstimmung ist.

Die Maschine ist auch in  
Übereinstimmung mit allen  
einschlägigen  
Bestimmungen der  
folgenden EG-Richtlinien:  
2004/108/EG, 2000/14/EG

Folgende harmonisierte  
Normen (oder Teile davon)  
oder techn. Spezifikatio-  
nen wurden angewendet:

est conforme à toutes les  
exigences respectives  
selon la directive relative  
aux machines 2006/42/CE.

La machine est aussi  
conforme à toutes les  
exigences respectives  
selon les directives CE  
suivantes:

2004/108/CE, 2000/14/CE

Les normes harmonisées  
(ou extraits de celles ci) ou  
les spécifications  
techniques suivantes ont  
été appliquées:

**EN 709, EN 12733, EN ISO 14982**

conforms to all relevant  
specifications of the  
Directive on Machinery  
2006/42/EC.

It is also conform to all  
relevant specifications of  
following EC directives:  
2004/108/EC, 2000/14/EC

Following harmonized  
standards (or parts of it) or  
technical specifications  
have been applied:

voldoet aan de  
desbetreffende bepalingen  
van de EG-machinerichtlijn  
2006/42/EG.

De machine voldoet ook  
aan de desbetreffende  
bepalingen van het  
volgende EG-richtlijnen:  
2004/108/EG, 2000/14/EG

De volgende  
geharmoniseerde normen  
(of delen ervan) of  
technische specificaties  
worden toegepast:

Möckmühl, den 13.01.2010

Siegfried Arndt  
Geschäftsführer  
Directeur  
Managing Director  
Bedrijfsleider

Rudolf Tigges  
Leiter Entwicklung & Konstruktion  
Responsable développement et études  
Head, Research and Development  
Hoofd ontwikkeling en constructie

Herr Tigges ist bevollmächtigt die technischen Unterlagen zusammenzustellen.  
Monsieur Tigges est habilité à agencer la documentation technique.

Mr. Tigges is authorized to assort the technical documents.

De heer Tigges is gemachtigd om de technische documentatie op te stellen.

Anschrift/adresse/address/adres:

agria Werke GmbH, Bittelbronner Str. 42, D-74219 Möckmühl

# **agria**

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